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Romania's Integration into European Markets: Implications for Sustainability of the Current Export Boom*/

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Abstract: In defiance of its unimpressive track in structural reforms and relatively low foreign direct investment (FDI) inflows, Romanian exports have experienced surprisingly strong performance in both EU and non-EU markets since 2000 after a four-year period of flat growth. While the first phase of growth in 1992-95 can be easily explained by redirection of trade toward the EU once the state monopoly over foreign trade was abolished and other policy areas liberalized, the current, second phase of export expansion raises questions concerning its drivers and sustainability.

Having examined overall foreign trade performance, evolving patterns of specialization, Romania's competitiveness in EU sunrise markets, changes in factor intensities of trade with the EU and 'intra-product' trade, the study concludes that Romania's export offers has become diversified, reflecting an impressive progress in industrial restructuring. Restructuring has been facilitated by FDI inflows, even though they appear to have been too small to generate such a big effect. Romanian firms have become increasingly part of international production networks and traditional global value chains. Sustainability of this performance depends on maintaining macro stability and keeping wage increases in line with productivity growth as well as increasing Romania's ability to attract larger FDI inflows through improvements in business climate and trade facilitation.

Key terms: Integration, foreign trade, intra-product trade, foreign investment, industrial restructuring, multinational corporations, backward linkages

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1. INTRODUCTION

Export performance has been a bright spot in Romania's otherwise bumpy transition from orthodox central planning. Having registered a significant contraction in its presence in world markets through the 1980s further exacerbated by the steep decline in trade after the collapse of Ceaucescu's regime in December 1989, Romania's foreign trade rebounded beginning in 1993 and has become a major driving force behind Romania's growth performance. While the GDP grew on average at a negative rate of 0.4 percent over 1990-01, the volume of exports registered an annual average growth of 8.5 percent and that of imports 6.8 percent (WDI 2003). The value of EU-oriented exports increased five-fold between 1993 and 2002, while the value of total exports increased almost three times.

Two phases of expansion in exports can be easily identified in Romania's foreign trade performance since the collapse of central planning in 1989. Both have displayed extraordinary dynamics. During the first phase over 1992-95, the value of total exports increased 70%. Stagnation followed in the 1992-95 period with the value of exports rising only 8% by 1995. The second phase began in 2000—the value of exports rose 70% between 1999 and 2002. While during the 1992-95 period the reorientation of exports toward the EU has been a major lever driving total exports, simultaneous expansion of exports to the EU and ROW (rest of the world) has characterized the current, second big export push. While factors accounting for the first expansion are well understood, a remarkable recent performance that has taken place against stagnant import demand in the EU begs an explanation.

The impressive recent export performance cannot be explained by a 'catch-up' dynamic triggered by a steep contraction in trade in 1989-92, when the value of exports fell almost 60 percent and that of imports 40 percent (Kaminski 1993). Reorientation in trade patterns following the collapse of CMEA and central planning was largely responsible for a two-fold increase in the value of exports between 1992 and 1995 driven exclusively by burgeoning exports to the EU. It fails, however, to explain a stunning export performance over 2000-02 with the average annual growth rate of almost 18 percent that has taken place against weak import demand in the EU, by far Romania's most important trading partner.

Neither does the privileged access to EU markets provide an explanation. First, the share of the EU in Romania's total exports did not significantly increase in 2000-02 indicating similarly strong export performance in other markets. Second, while this period witnessed zeroing of duties on imports from the EU, Romanian exporters of industrial products had duty-free access for most of their products since 1996. There was no significant improvement in the conditions of market access for manufactured goods during this period.

Neither does the Euro appreciation vis-à-vis the US dollar offer an explanation, as some authors claim (see for instance Vosganian 2003). Romania's share in EU external imports—a measure completely independent of currency movements—increased 64% between 1999 and 2003 growing 33% in 2002 alone.

Thus, it would seem the current expansion is not the result of some favorable, unique external circumstances but rather the result of industrial restructuring and improved capacity of Romanian firms to compete in open international markets. But unlike in several other CEEC-10,[1] no massive FDI inflows had paved the way for improved export performance. Romania has not attracted considerable FDI since the collapse of central planning. Even a dramatic increase in the value of FDI over 1997-2002 has failed to close the gap vis-à-vis most CEEC-9. FDI have been the major force behind industrial restructuring and developing internationally competitive export

[1] CEEC-10 include eight 2004 entrants to the EU (Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia and Slovenia) and Bulgaria and Romania, scheduled to join the EU in 2007.

capacities in all transition economies that experienced strong export performance in the second half or late 1990s. Many publications have shown a strong link between inward FDI and gains in export competitiveness of CEEC-10.[2]

Assuming that Romania is not an exception to an established link between FDI and export orientation, the question is whether there has been something unique about FDI in Romania. Hunya (2002) argues that the presence of foreign owned firms in exports or for that matter in the economy has been significantly larger than the mere value of accumulated FDI inflows would indicate. In a similar vein, an econometric study of technological spillovers from foreign to domestic firms in CEEC-8 (CEEC-10 without Latvia and Lithuania) has found that Romania was the only country with very significant knowledge spillovers (Damijan et al. 2003). Recent empirical study also finds positive horizontal spillovers in Romania (Javorcik and Spatareanu 2004). But, whatever the explanation, it still leaves open a question why such a small amount of FDI has produced so much in terms of export performance.

Finding an answer to this question is particularly relevant in the context of a central question driving this research, i.e., sustainability of export performance. Both are interrelated, as an examination of factors driving recent expansion provides answers to both questions. For instance, if low tech and unskilled labor intensive products have been the major export levers, then low FDI inflows could have sustained improvements in competitiveness. Industrial operations are not capital intensive. Small amounts of foreign investment may then produce significant gains in exports.

Although Romania remains a net exporter in trade with the EU only of unskilled labor intensive products, its export basket became more diversified in 2000-02, mainly thanks to soaring exports of electrical machinery, steel and iron products, and automotive and other parts. It appears that many Romanian firms have become part of supply chains of EU-based multinational corporations (MNCs) especially within the Information Revolution network. But in comparison to other CEEC-10, the share of the 'network' trade is relatively low. On the other hand, however, there was a very rapid expansion in trade in parts indicating growing presence of Romanian firms as suppliers in other areas not covered by network trade.

However, sustaining this profile of export specialization depends on maintaining the balance between wages and labor productivity. The experience of more developed CEEC-10 suggests three observations: First, strong upward pressures for wages combined with outsourcing from the EU erode unskilled labor wage competitiveness.[3] Many low skilled labor intensive operations have been moving from Czech Republic or Hungary to Bulgaria or Romania. The latter has been coming under increasing pressures from lower wage countries, e.g., Belarus, Ukraine, Albania. Second, FDI inflows have been critical in moving CEEC export basket to higher value added and closing the gap between high shares of unskilled labor intensive products in relation to relative endowment in skilled labor. This gap is yet to be closed in Romania. Hence, in order to maintain its competitiveness, Romania will have to perform much better in terms of attracting FDI to capital and skilled labor-intensive projects. Last but not least, the development of backward linkages has been relevant for export growth. While a more detailed examination going beyond trade analysis is required, there appear to exist backward linkages in the footwear sector. The

[2] For the discussion of the case of Hungary, see Kaminski (2000); for Poland, see Kaminski and Smarzynska (2001); and for Lithuania, see Smarzynska-Javorcik (2004). For a more general discussion, see Part 2 in UNCTAD 2002.

[3] Feenstra and Hanson (1997) and Egger and Stehrer (2001) show correspondingly that outsourcing had a positive impact on wages of unskilled labor in Mexico and CEEC-3 (Czech Republic, Hungary and Poland).

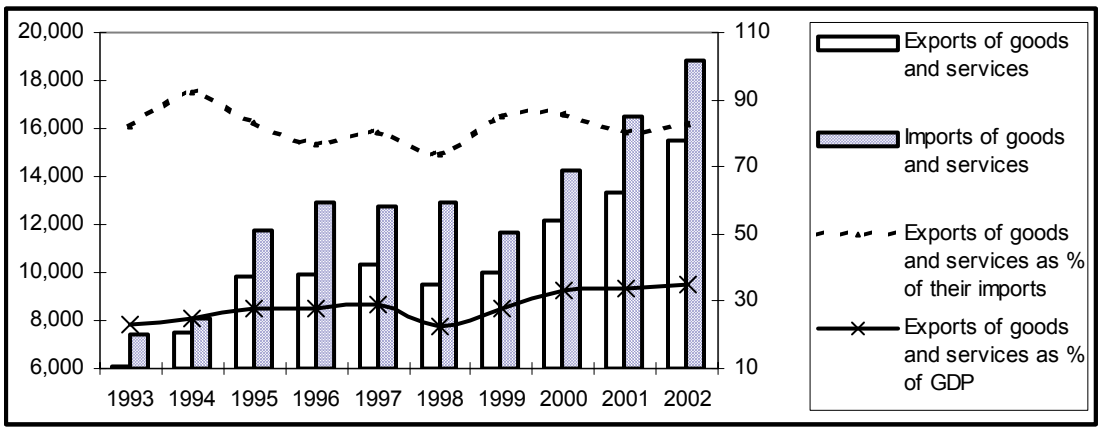
examination of another important sector for Romania's trade, clothing, suggests some progress, albeit much less pronounced than in footwear. Creating an environment conducive to the emergence of entrepreneurial skill capitalizing on opportunities offered by export sectors is a condition for continued expansion.

The remainder of this paper is organized as follows. Section 2 briefly depicts the dynamics of foreign trade since the collapse of central planning in December 1989. It shows three phases: expansion in 1992-95, stagnation in 1996-99, followed by the second export explosion that began in 2000. The difference between the first and the second is that the latter characterized simultaneous expansion in EU and non-EU exports. Section 3 focuses on a number of issues pertinent to an assessment of developments in foreign trade with the EU. These include emerging patterns of specialization; factor intensities of trade; participation of Romanian firms in global networks of production and distribution including trade in parts; and development in backward linkages in footwear and garments as captured by foreign trade. Section 4 looks at FDI, restructuring, and trade. Section 5 seeks to answer a riddle—why has so little FDI has produced so much in terms of export growth? Section 6 concludes.

2. FOREIGN TRADE: DYNAMICS AND REORIENTATION

Since the collapse of communism, the direction of Romania's foreign trade has changed drastically. While some of these changes were simply the result of the contraction in import demand in former centrally planned economies, others followed successful efforts to reorient trade in line with economic incentives and comparative advantage. Trade with the EU has expanded rapidly and the EU has quickly emerged as Romania's dominant trading partner. While there has been a significant reorientation of trade, especially on the side of exports, towards the EU, this does not appear to be the result of trade diversion triggered by the European Association Agreement. A unique feature of this trading relationship has been an uninterrupted growth in Romania's exports to the EU since 1992 offsetting initial decline in trade with the ROW. In consequence, the picture that emerges from eyeballing statistics for total trade is different than that derived simply from trade with the EU.

Figure 1: *Foreign trade in goods and services in 1992-2002 (in million of US dollars)*



Source: World Bank WDI database (through SIMA).

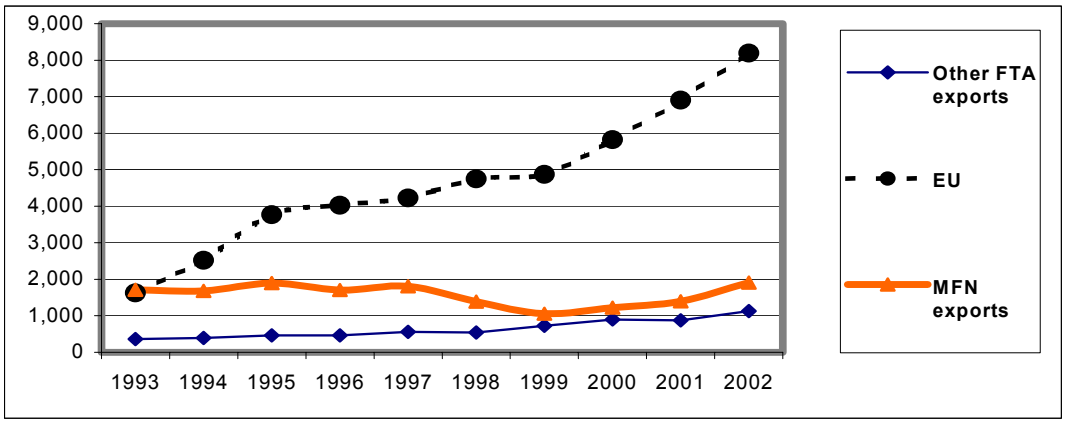
A very cursory examination of Romania's foreign trade performance since the implementation of the first stabilization-cum-transformation program in 1991 suggests the existence of three phases: the phase of expansion in 1993-95; the stagnation phase in 1996-1999; and the expansion phase that began in 2000 (Figure 1 above). Imports followed a similar pattern as exports, although they

fell steeper than exports in 1999 and the value of imports continued growing in 1996 while exports already stagnated. Services accounted on average for 14 percent of total exports and 15 percent of total imports of goods and services. Both trade and services balances were in red with exports paying on average for around 80 percent of imports. However, exports of services significantly expanded in 1999-02 slightly exceeding their imports in 2002, albeit the ratio improved in 2002 reaching 83 percent up from 81 percent in 2001.

Exports of goods and services as percent of GDP increased from 23 in 1993 to 28 in 1997, fell to 23 percent in 1998, and then grew faster than the GDP to reach 35 percent in 2002. Stop-and-go progress in implementing economic reforms has led to a three-year recession over 1997-99, with the GDP contracting and inflation reaching 80 percent (World Bank 2003).

The three-phase breakdown of Romanian foreign trade performance does not reflect developments in exports to its main preferential partner—the EU. According to the EU data, except for 1996 (4%) and 1999 (6%), EU-oriented exports grew at double-digit rates, although there was a deceleration in growth in 1996 and 1997. Simultaneously exports to other preferential partners even during the 1996-99 stagnation phase grew at an annual average rate of 15%, which would hardly qualify as stagnant (see Figure 2). MFN exports were stagnant in terms of value in 1993-97, took a dive down in 1998-99 and strongly recovered in 2000-02 reaching almost US$ 2 billion, the level recorded earlier in 1997 (see Figure 2). The value of exports to other FTA partners (mainly CEFTA) grew at almost 10% per year in 1996-98 and exploded in 1999 (33%) and 2000 (42%).

Figure 2: *Exports to the EU, other preferential and MFN markets (in million of US dollars)*



Source: Derived from the UN COMTRADE database as reported by Romania.

The combination of weaker growth in EU-oriented exports and falling exports to ROW, quite precipitously over 1998-99, contributed to stagnation in total exports in 1996-99. On the other hand, the combination of unusually strong export growth to the EU and recovery in ROW-oriented exports has been responsible for the current expansion phase. Indeed, the share of ROW in Romanian exports, albeit not in imports, has slightly increased.

The shift of exports towards the EU occurred primarily at the expense of East Asia with its share falling from 13% in 1993 to 4% in 2002 and former Soviet republics excluding Baltic states (CIS-12), whose share fell from 9% to 2%.[4] The share of CEEC-9 (mainly CEFTA) in Romania's

[4] East Asia includes the following countries: Brunei, Cambodia, China, Hong Kong (China), Indonesia, Japan, Korea Rep., Lao PDR, Malaysia, Mongolia, Philippines, Singapore, Taiwan (China), Thailand and Vietnam.

exports increased from 4.4 percent in 1995, rose to 8.2% in 2000, and fell in 2001-02 reaching 6.4% in 2002. The share of NAFTA in total Romanian exports went up from 2 percent in 1993 to 4 percent and stayed at this level in 1994-2002 (Annex Table 1).

The change in import patterns was much less pronounced, with the share of the EU increasing from 45% in 1993 to 59% in 2002. East Asian increased their presence in Romanian markets—from 4% in 1993-95 to 6% in 2001-02, whereas NAFTA's share dropped from 7% to 3.5% over the same period. So did the share of CIS-12, but the fall was much less significant then in their exports. Their combined share fell from 16% in 1993-95 to 12% in 1996-99 caused mainly by the fall in imports from Russia, whose share fell from 13% to 7%, whereas other CIS countries expanded their presence in Romanian markets. CEFTA countries also increased exports, with their share in total imports growing from 5% to 10% in 1993-2002.

Geographic pattern of Romania's total trade turnover has become more geographically concentrated but almost exclusively because of the shift in export patterns towards the EU and CEFTA rather than the change in geographic directions of imports. The combined share of EU and CEFTA in Romania's total trade turnover rose from an average of 53% in 1993-95 to 70% in 2000-02 (Table 1).

Table 1: *Change in the shares of Romania's major trading partners in total trade turnover in 1993-95, 1996-99, and 2000-02 (in percent)*

	Average share in			Share in	Index, 2002
	1993-95	1996-99	2000-02	2002	1993=100
EU15	47.8	57.8	61.4	62.3	143
CEFTA	5.4	6.6	8.5	8.3	154
Subtotal	53.1	64.4	69.9	70.6	144
NAFTA-3	4.7	4.3	3.8	4.0	86
East Asia-15, including Japan	6.8	5.2	4.6	5.1	64
CIS12	12.2	9.4	8.1	7.6	59
Of Which: Russian Federation	8.4	6.5	4.7	4.2	48
Rest of the world	23.1	16.7	13.6	12.7	50

Source: own calculations based on UN COMTRADE Statistics.

Although it would be tempting to attribute change in direction of trade directly to FTA with the EU (since 1993) and improved access to other regional markets (e.g., CEFTA since 1997),[5] this is not necessarily the case. In fact, the potential for EU importers shifting their purchases from non-preferential suppliers to Romanian firms, trade diversion, has been very low for two reasons. First, barring textiles still subject to a special import regime in the EU, EU MFN applied tariffs on manufactures are very low, with the average of about 4%. This does not offer much of a breathing space vis-à-vis MFN suppliers from highly competitive countries such as, for instance, China, Korea, Japan or the US. Second, Romanian exporters, including textiles, have had to compete with a very large group of producers from countries facing similar conditions in access to EU markets. This includes not only European transition economies but also a number of developing countries with which the EU has special preferential arrangements.

One might thus conclude that, contrary to expectations, preferential market access have not been the main lever shaping expansion in Romania's exports. An important implication for an

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assessment of sustainability of exports is that lower MFN tariff rates in CEFTA countries following their accession to the EU in 2004 *will not erode competitiveness of Romanian products*.

The emergence of the EU as the main trading partner should come as no surprise. At the outset of transition, some analysts predicted that the transition economies were potentially very significant importers as well as exporters to west European markets, once central planning is fully dismantled (Winters and Wang 1994). The current shares of the EU in Romanian total trade turnover of 55% and in exports of 67% are roughly the same as those of other CEFTA economies. Similar forces have driven this change. Like other CEEC economies (except Slovenia), Romania undertraded with the EU under central planning. Like in other CEEC economies its domestic firms have become part of the division of labor centered on the EU.

3. FEATURES OF THE CURRENT WAVE OF STRONG EXPORT PERFORMANCE

Romania has been experiencing since 2000 a very strong export performance raising questions about its sources and, ultimately, sustainability. Considering relatively slow progress in second-generation reforms and perceived weaknesses in its investment climate, this has come as a surprise to most observers. Even more surprising was the fact that the surge in exports has not been confined to flat EU markets over 2000-02 but, as discussed above, exports to non-preferential partners have grown at a similar pace.

A. Outstanding dynamics of total exports: critical importance of EU markets

The current expansionary phase of Romania's export performance in EU markets is not a statistical fluke, as some argue (see for instance Vosganian 2003). Neither have EU-oriented exports been its sole lever. Euro appreciation vis-à-vis the US dollar has not been a 'statistical' factor in its stellar performance in 2002 when the US dollar began depreciating against the Euro. Consider that Romania's share in EU external imports—a measure indifferent to currency fluctuations—increased 33% in 2002 alone on top of the 20% increase in 2001 over 2000. Furthermore, exports to other markets have strongly rebounded halting the process of growing reliance on EU markets.

The acceleration in export growth in 2000-02 has been outstanding not only against other CEEC-10 performance but also against its performance immediately after launching the stabilization-cum-transformation program in April 1991.[6] Romania recorded the largest increase in the share in EU external imports among CEEC-10, with its share rising from 0.64% in 1999 to 1.05% in 2002, or 64% (Table 2). The share of Czech Republic, the second best performer among CEEC-10, increased 43% from 1.8% to 2.6% over the same period.

Table 2: *Romania's performance in EU markets against CEEC-9. Change in the share in EU external imports and the share in CEEC-10 EU-oriented exports in 1993-02*

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	Index 2002, 1999=100
CEEC-10	100	117	133	134	141	159	162	162	179	212	131
Bulgaria	100	127	152	133	142	144	131	140	156	142	108
Romania	**100**	**136**	**164**	**163**	**177**	**194**	**199**	**205**	**245**	**326**	**164**
Share in EU external demand (%)	0.32	0.44	0.53	0.53	0.57	0.63	0.64	0.66	0.79	1.05	164
Share in CEEC-10	6.34	7.34	7.67	***7.64***	7.86	***7.65***	7.67	7.89	8.48	9.43	123

Source: Own calculations on the basis of EU data as reported to the UN COMTRADE.

[6] For an assessment of Romania's first-generation reforms in comparative perspective, see Bruno (1994).

This performance during the current phase also stands out when juxtaposed against that during the initial stages of transition, i.e., when earlier 'undertrading' with the EU and redirection from other collapsing markets drove the first export expansion. The change in share over 1992-1996 of 66% was roughly similar to that in the 1999-2002 period, and Romania then ranked third among CEEC-10 after Estonia (271%) and Slovak Republic (90%) in terms of the pace of growth.

Except for two CEEC countries, Romania outperformed on average in the 1993-02 period all other CEEC-9 in EU markets with clearly superior performance in 2000-02. An impressive achievement considering that CEEC-10 outperformed other exporters with their share in EU-external imports more than doubling between 1993 and 2002 from 5.1 percent in to 11 percent. Its share in total CEEC-10 EU-oriented exports increased each year except in 1996 and 1998. The average growth rate of 20% in EU-oriented exports over 1994-02 ranked third among CEEC-10 after Estonia (30%) and Slovakia (22%). Romania together with Czech Republic are the only countries among CEEC-10 that had EU-oriented export growth exceeding the growth in EU external import demand each year over 1994-02—all others experienced a year or more of contraction in their respective shares of EU external imports.

B. Levers of export growth

EU-oriented exports of manufactures have been the main driver of Romanian exports throughout 1993-2002. So have they been during the current expansion, albeit with three important qualifications. First, manufactures have become also the driving force behind the surge in ROW-oriented exports. Second, although textiles and clothing (TC) and footwear continued their strong export performance, other manufactures—mainly electrical machinery—have made significant contributions to the current expansion. Last but not least, exports of other goods have kept pace with the growth of exports of manufactures.

Manufactures have been driving growth of exports to ROW during the current phase. The value of exports of manufactures to the EU increased five folds between 1993 and 2002, while that to ROW only 46 percent. But the whole increase occurred in 2000-02. The value of ROW-oriented exports of manufactures was 70% higher in 2002 than in 1999, recording the same increase as exports of manufactures to EU markets (Table 3). Their share in ROW-oriented exports, which fell from 73% in 1993 to 58% of the total in 2000, strongly rebounded to 67% in 2002. This is a new development, as—in contrast to a much higher share of manufactures in EU-oriented exports—this share was falling in ROW-destined exports over 1993-2000.

Table 3: *Manufactures in total and EU oriented exports (in million of US dollars*)

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	Index 1996 1993=100	Index 2002 1999=100
Share of EU in total exports of manufactures	44%	55%	61%	65%	64%	71%	73%	73%	75%	73%	148	100
ROW-destined exports of manufactures	2,076	2,083	2,362	2,178	2,373	1,942	1,786	2,126	2,279	3,044	105	170
Share of manufactures in ROW-oriented exports	73%	66%	65%	62%	66%	66%	62%	58%	64%	67%	86	109
Exports of manufactures to EU	1,627	2,520	3,766	4,027	4,227	4,747	4,873	5,827	6,908	8,197	248	168
Share of manufactures in EU-oriented exports	80%	85%	88%	88%	89%	88%	87%	88%	89%	88%	110	101

Note: Manufactures defined as SITC. Rev 2, 5 through 8 minus 68.
Source: own calculations based on UN COMTRADE Statistics.

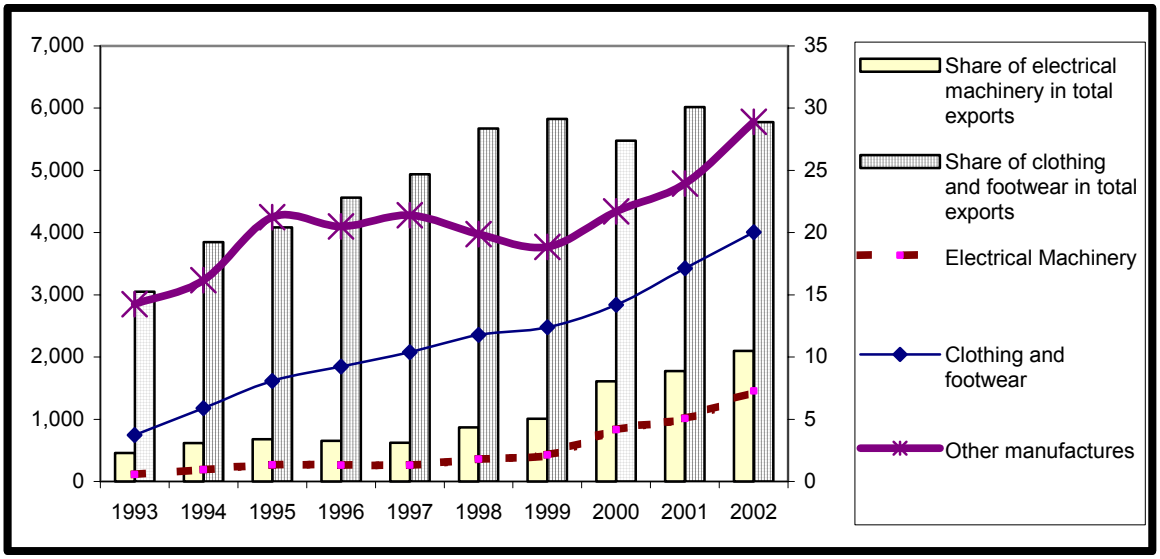
In the context of strong export growth of manufactures, a striking feature of Romanian EU-oriented exports has been respectable growth performance of other goods. The growth in exports of other products has kept pace with the growth of manufactured exports since 1995. The share of manufactures increased in 1994 and 1995 to 88% of Romanian EU-oriented exports and remained

roughly unchanged. The aggregate share of foodstuffs and agricultural raw materials stayed at around 5% of total EU-oriented exports.

What sectors have been star performers in overall export performance? Although the answer depends on which phase one considers, there are some fixtures. The latter include clothing and footwear. They have been consistent top performers, with their aggregate share in total exports doubling from 15% in 1993 to almost 30% in 2002 (Figure 3). Exports of clothing, accounting now for one-third of EU-oriented exports, and footwear, for less than 10% of EU-destined exports, increased in terms of value five and seven fold respectively between 1993 and 2002.

Eyeballing the data presented graphically in Figure 3 suggests that the 2000-02 phase is fundamentally different from earlier phases in two important respects. First, in contrast to earlier phase the growth in exports of clothing and footwear was in line with the growth in total exports. Their aggregate share has not changed much since 1999 in marked contrast to developments over 1993-98.

Figure 3: *Exports over 1993-2002 (in million of US dollars and percent)*



Source: own calculations based on UN COMTRADE Statistics as reported by Romania

Second, exports of electrical machinery, which more than tripled in terms of value between 1999 and 2002, and exports of other manufactures, which fell from US$ 4.2 billion in 1995 to US$ 3.8 billion, strongly recovered increasing to US$ 5.8 billion have driven the current expansionary phase. It is worth noting that electrical machinery emerged as a top performer only in 2000, when its share in total exports rose to 8% from 4% in 1998. The value of these exports exceeded US 1 billion in 2001 and raised another 50% or US$ 500 million in 2002, accounting for 10% of total Romanian exports. In short, there has been an increase in diversity of Romania's export offer of manufactured goods.

Data presenting dynamics of Romanian exports in terms of end-use product categories corroborate the observation about growing diversity of Romanian export offer (Table 4). More significantly, they point to differences in drivers of growth in both phases in terms of the level of processing embodied in exports. Overall they indicate an increase in the level of processing embodied in exports during the current phase, as captured by changes in the weight of foods and feeds together with industrial raw materials. These are regarded as traditional production inputs, that is, not processed in their present form (Feenstra 1998). They accounted for 43% in total exports 1989, but only 12.8% of total exports in 1993.

During the first phase the growth in exports of industrial raw materials and foods and feeds was above the average for the total export growth. This trend persisted through the phase of stagnation. Their aggregate share increased to 16% of total exports in 1999. But this was exclusively the result of developments in trade with ROW not with the EU. Since ROW markets took around three-fourths of these exports until 1997 and 60% hereafter, ROW-oriented exports have shaped the overall picture. Traditional production inputs—foods and feeds together with industrial raw materials—were the only product categories that had consistently strong growth in ROW-directed exports. Their aggregate share in these exports rose from 12% in 1993 to 22% in 1996, then slightly contracted in 1997-98, and rebounded in 1999.[7] The share of traditional production inputs in EU-oriented exports fell from 7% in 1993 to an average of around 5% in 1995-2001 and 4% in 2002.

Table 4: *Dynamics of exports by end-use product categories in 1993 and 2002*

	In million of US dollars		Index,1995	Index,2002	Composition in %		Share of EU in %	
	1993	2002	1993=100	1999=100	1993	2002	1993	2002
Food & Feed (0+1+2+4-27-28)	481	880	**162**	99	9.8	6.3	27.4	40.1
Industrial Raw Materials (27+28+68)	152	589	**180**	128	3.1	4.2	48.8	47.6
Machinery, excluding auto (7-78)	615	2,598	140	**199**	12.6	18.7	27.2	66.1
Automobiles & Parts (78)	220	344	78	**275**	4.5	2.5	7.2	69.1
Consumer Goods (5+6+8+9-68)	2,935	8,363	**177**	157	60.0	60.3	49.2	75.0
Non-Oil Goods (0 to 9 less 3)	4,404	12,775	165	158	90.0	92.1	41.6	69.3
Fuels (3)	488	1,101	129	266	10.0	7.9	39.1	43.3
All Goods (0 to 9)	4,892	13,876	162	163	100.0	100.0	41.4	67.3

Source: Own calculations based on UN COMTRADE Statistics as reported by Romania.

The current expansion phase witnessed the falling trend in significance of exports of traditional production inputs, with their aggregate share falling to 11 percent in 2002, together with the emergence of machinery and automobiles and parts as growth engines. The aggregate share of the latter increased from 17% in 1999 to 21% in 2002, with the share of machinery increasing from 15% to 19%. The share of automobiles and parts rose from 1.5% to 2.5%. Except for 1999-2000, exports of consumer goods grew faster than total exports.

In all, the differences in sources of export growth between two expansionary phases are huge indicating progress in industrial restructuring. Although the increase in the value of total exports was the same in both phases, end-use products contributing to the expansion as measured by their above average performance have been different except for consumer goods, which have displayed a strong performance in both phases. While during the first phase industrial raw materials and foods and feeds registered fast growth, machinery and automobiles and parts together with consumer goods have been the drivers of the current expansion.

C. Imports have kept up with export growth since 1993

The surge in exports was accompanied by acceleration in import growth. Imports of goods have tended to grow at a similar pace as their total exports through 1994-2002. Export growth outstripped import in four years—in 1994, 1997, 1999 and 2002. On average total exports

[7] The latter accounts for around one-fourth of manufactured exports to ROW but only for 4% of EU-destined manufactured exports (Annex Table 2). The former accounts for 37% of EU-oriented manufacture exports but only for 7% of ROW-oriented exports. The involvement of MNCs has probably been accountable for the expansion in EU-oriented exports of transport equipment and electrical machinery. They appear to have also contributed to the growth of exports of transport equipment to ROW.

amounted to around 80% total imports of goods in 1993-2002. Since the current phase began in 1999, with the contraction of imports (-12) in terms of value and a slight increase in the value of total exports (1%), import dynamics contains a 'catch-up' component exaggerating its growth. With a subsequent expansion in exports, imports rebounded even stronger registering four percentages and nine percentages larger annual increases in 2000 and 2001 than those in exports (22 and 10%). The value of exports increased 22% and of imports 15% in 2002. In consequence, import coverage by export earnings improved from 73% to 78%, although (Table 5).

Table 5: *Developments in imports and net exports during two expansionary phases (in million of US dollars and percent)*

	Imports in million of US dollars			Change in value of imports			Exports as percent of imports				
	Average	Average		Index, 1995	Index, 2002	Growth	Average	Average			
	1993-95	1999-02	2002	1993=100	1999=100	2002	1993-95	1999-02	2000	2001	2002
Food & Feed (0+1+2+4-27-28)	1,007	1,184	1,360	98	149	-1.1%	64	75	76	61	65
Industrial Raw Mat'l (27+28+68)	288	443	463	**158**	141	-4.0%	75	**136**	**155**	**123**	**127**
Machinery, excluding auto (7-78)	1,737	3,406	4,146	**169**	165	14.8%	43	56	53	56	63
Automobiles & Parts (78)	188	564	867	**235**	**385**	20.2%	**119**	42	39	33	40
Consumer Goods (5+6+8+9-68)	2,896	6,962	9,023	**200**	168	22.2%	**140**	97	**100**	95	93
Non-Oil Goods (0 to 9 less 3)	6,115	12,560	15,859	167	170	16.8%	94	82	84	79	81
Fuels (3)	1,854	1,656	2,002	131	190	1.3%	31	44	47	36	55
All Goods (0 to 9)	7,970	14,216	17,862	158	172	14.9%	80	78	79	73	78

Source: Own calculations based on UN COMTRADE Statistics as reported by Romania.

Romania has been a net importer in almost all product categories classified by end-use during both phases. During the first phase of trade expansion, exports of automobiles and parts as well as exports of consumer goods exceeded their imports, but since 1995 the balance has been reversed for automobiles and parts and for consumers goods in 1998. During the second phase, Romania has been a net exporter of industrial raw materials, although the export surplus has been on decline since 2000 and increase in the value of their imports was much lower than during the first phase. This improvement has been the result of exports of steel to non-EU markets. Exports of consumer goods were very close to the value of their imports, although the latter grew faster in 2001-02.

Data presented in Table 4 also point to the weaknesses of the agricultural sector. Despite its favorable climate and soil conditions, Romania has remained a net importer of foods and feeds. While the average of exports as percent of imports in 1993-95 is lower than the average in 1999-02, this is only to the combination of the fall in imports in 1999 (21%) and especially strong exports (19%) raising the ratio to 97. With imports expanding and exports stagnating, there has been subsequently an increase in net imports.

D. Conclusion

Romania's export expansion has not involved exporting more of the same products. While many products that have displayed competitiveness in international markets continued export growth, many new competitive products have emerged during the current expansion. There has been a marked shift toward more processed goods away from low processed industrial raw materials. Simultaneously, Romania's export offer has become more diversified showing surprising proofs of significant industrial restructuring.

Another distinctive feature of the current expansion is recovery and strong growth in exports to ROW mainly due to the growth of machinery (excluding automobiles. The growth in ROW-oriented exports was sufficiently strong to halt the trend of growing reliance on EU markets in overall trade.

4. FDI, RESTRUCTURING AND TRADE

Leaving aside domestic capacity constraints and barring macroeconomic shocks, patterns of trade integration into the EU, accounting for the bulk of Romanian exports, offer clues as to their sustainability. How potentially stable are established commercial links? Do Romanian firms participate in most rapidly expanding components of international trade? The answers to these questions addressed in this section are crucial to an assessment of sustainability.

In contrast to the first explosion in EU-directed exports following the initial stabilization-cum-transformation programs of other CEEC-10, four-five year stretch of FDI inflows running at around 5% of the GDP preceded the second expansion. Hungary experienced this second 'export push' in EU-markets in 1996-99, and such other CEEC-10 as Czech Republic, Poland and Slovakia a few years later. Radical changes in the composition of exports, the shift toward capital- and skilled-labor intensive products have been defining features of this second expansion wave. In contrast to the first expansion phase dominated by locally owned firms, foreign owned firms have been the main levers of export expansion in the second export boom.

The puzzle is that Romania has been the least successful among CEEC-10 in attracting FDI, and yet have been experiencing the second export boom. Average FDI flows per capita have been the lowest among CEEC-10. They have been also well below the average for developing countries. These unfavorable FDI-related developments notwithstanding, as it is discussed below, Romania's export basket has both changed and expanded rather significantly over the last three years. How does Romania's current second expansion in exports fit this pattern? Have foreign firms contributed to increased competitiveness of Romanian exports? If so, then why so little FDI have produced so huge results?—these are the main questions addressed in this section.

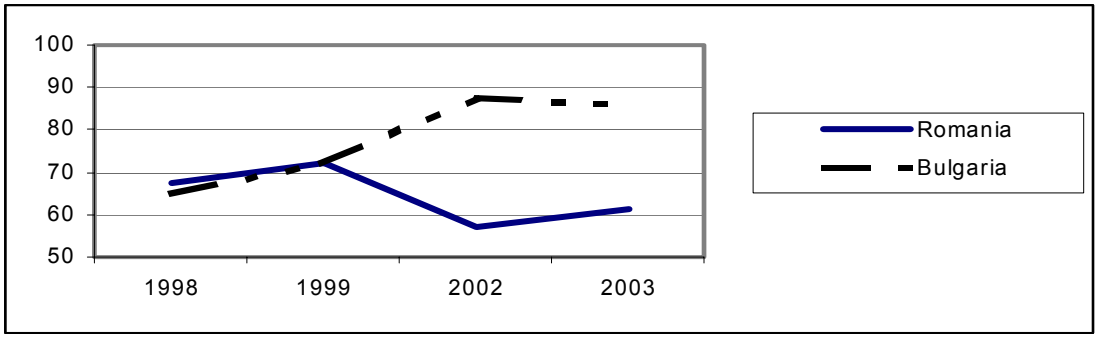
A. FDI Inflows and governance in comparative perspective

Inadequate progress in second-generation reforms provides explanation in variation of FDI inflows. A number of empirical studies focusing on transition economies have corroborated this finding. Garibaldi et al. (2002) have shown, that the quality of institutions explain the variation in FDI flows to transition economies. In a similar vein, Broadman et al. (2003, p.13), plotting the data on FDI per capita and EBRD's governance and restructuring indices for all Balkan countries also find a very strong positive association between these two variables. The explanation is that countries with weaker business climate have been less successful in attracting FDI. Ineffective protection of property rights and weaknesses in contract enforcement discourage foreign investors.

Indeed, Romania has not been scoring high in various international assessments shedding light on the progress in second-generation, structural reforms, quality of governance or corruption. For instance, the value of its Corruption Perception Index (CPI), as annually assessed by Transparency International was consistently well below scores of other CEEC-10 with the exception of Bulgaria and Lithuania. While both countries improved on this count moving closer to median values for remaining CEEC, Romania, despite progress in 2003 over 2002, remains around 20% percent below the worst performers among CEEC. Its CPI of 2.8 (10 for a perfectly clean and zero for maximum corruption) in 2003 was significantly below the average for CEEC-8 (EU 2004 entrants) of 4.5 and that for Bulgaria of 3.9. The average for EU-15 was 7.8 in 2003. Figure 4 presents graphically these developments in CPI for Bulgaria and Romania measured in relation to the average for CEE-8 countries taken as 100.

An examination of selected indicators of the quality of governance, as measured by the World Bank, yield similar results. Table 6 reports averages of three governance indicators—political stability, government effectiveness and regulatory quality. Three other indicators measuring such dimensions of governance as the rule of law, control of corruption, and voice and accountability are not taken into account. For post communist countries, they are strongly correlated with other three indicators, with the values of correlation coefficients equal or above 0.9. Hence, taking them into account into a single aggregate indicator of governance would not bring new information. The aggregate indicator assumes values between zero (the worst case) and ten (the best case). Bulgaria and Romania were well outside the quality of governance in CEEC-8 in 1996-98. Bulgaria has been catching up with since 1998 and Romania since 2000. Romania has been overall the worst performer among CEEC-10 countries.

Figure 4: *Perception of corruption in Romania and Bulgaria in 1998-03. Values of CPI as*



percent of average for CEEC-8

Source: Derived from data of Transparency International web site.

Table 6: *The quality of governance in Bulgaria and Romania in percent of the average for CEEC-8 in 1996-2002*

	1996	1998	2000	2002
Bulgaria	84	77	83	85
Romania	79	77	70	75
Memorandum: Values				
Romania	4.6	4.9	4.4	5.1
CEEC-8	5.8	6.4	6.4	6.7

Source: Derived from data in Daniel Kaufmann, Aart Kraay and Massimo Mastruzzi (2003).

So has she been the least successful in attracting large FDI inflows, thus confirming findings about the importance of business climate and quality of governance. The gap vis-à-vis other CEEC-10 was particularly high in 1991-96. FDI inflows were paltry averaging US$ 9 per capita per year, almost 85% below the average for the region. As a percentage of the GDP, they were also low below one percent.

The 1997-2002 period has witnessed, however, significant improvement as compared with both the1991-96 period and with other CEEC-10, although the gap has remained huge. The delayed second stage of the privatization process launched at last in 1997 triggered significant FDI inflows. Their value rose almost six-fold in 1997 over 1996, and then almost doubled in 1998 subsequently falling to around US$ 1 billion per year. Out of the total FDI inflows of US$ 9 billion, 86% of them or US$ 7.8 billion came in 1997-02. Yet, on all counts including cumulative

FDI inflows over 1999-02, Romania has been consistently the worst performer among CEEC-10, despite a very significant improvement in 1997-2002 (Table 7).

Table 7: *FDI inflows in comparative perspective in 1991-96, 1997-2002 and 2002 (estimate)*

	Average FDI (in million of US dollars)			Average FDI per capita (in US dollars)			Cumulative FDI over 1990-02		
	1991-96	1997-02	2002	1991-96	1997-02	2002	Total (mln. of $ dollars)	per capita in US$	2001 GNP (percent)
Bulgaria	85	782	647	10	79	48	4,927	587	27
Estonia	135	422	296	90	249	197	3,051	2,034	55
Czech Republic	1,089	6,242	9,886	106	520	1,059	39,227	3,808	54
Hungary	2,156	1,890	908	211	179	106	24,484	2,400	40
Latvia	159	323	349	64	142	140	2,926	1,170	38
Lithuania	56	596	744	15	149	201	3,587	969	30
Poland	2,119	6,127	4,371	55	148	113	46,483	1,204	28
Romania	**206**	1,323	1,210	**9**	**56**	**51**	**9,072**	**400**	**20**
Slovenia	111	612	1,950	55	282	989	4,017	2,009	22
Slovakia	175	1,834	4,260	32	325	1,078	10,322	1,911	42
TOTAL/average	6,254	20,152	24,621	59	175	257	148,096	1,406	34

Source: various issues *of Economic Survey for Europe* (UN Economic Commission for Europe), World Development Indicators 2003 (World Bank, 2003) and IMF Balance-of-Payments database.

B. FDI and Exports

Yet, it has been very successful in producing impressive, consistent export performance in EU markets since the collapse of communism. There has been no other case among CEEC-10 of the second export boom without huge FDI inflows into industry and business services. There is no reason to assume that Romanian industries could restructure and be successful in EU markets without involvement of FDI. Indeed, changes in Romania's export offer and its dynamics appear to have been triggered by foreign firms either directly or indirectly. Consider the following: Among the top 30 fastest growing four-digit SITC exports to the EU over 1995-2002, capital and transportation equipment products (SITC. 7) accounted for three-fourths of these exports. As we shall see below, the share of capital intensive products in sunrise exports, that is, exports of products with strong import demand growth in the EU tripled between 1999 and 2002 from 23% to 70%. This points to the expansion of processing activities in automotive industries and electrical equipment production, which, as the experience of other CEEC-10 shows, are mainly conducted by foreign owned firms (Kaminski, Smarzynska, 2001).

Hence, the riddle becomes why so relatively small stock of FDI has produced so much in terms of export performance. The answer has several components. For starters, there seems to be a view that Romania's institutions are more business friendly than generally assumed. In a study comparing the quality of institutions with those of countries at a similar level of economic development, Murrell (2003b) finds that Romanian institutions are better than could be expected.[8] Cost of doing business also does not seem to be higher than in other CEEC-10. This suggests that business climate alone would not choke off supply response to export opportunities. Neither would it prevent domestic businesses from learning from foreign firms provided that they interact.

FDI inflows have some important characteristics that may magnify their actual impact on the economy. Like in many CEEC-10, the bulk of FDI has come from firms located in the EU and U.S. and most went to the industrial sector. There were little investments, if any, that would indicate capital flight or money laundering activity. Services and industries—two sectors crucial to exports—have absorbed 70% of total capital invested in Romania, with the industrial sector

[8] To illustrate a similar point in a different context, Murrell (2003a) quotes extensive range of publication pointing to adequate enforcement of contract and property rights in Romania.

accounting for 54% of the total FDI inward stock. Investors from highly developed countries, the EU and the U.S. accounted for almost three thirds of inward FDI stock as of April 2003.[9]

But what seems to set Romania apart is that FDI inflows have been dispersed across a large number of relatively small firms with an average capital of US$ 100,000 (Table 8). The average size of a firm in terms of foreign capital invested as well as the number of firms varies by a sector of the economy. Foreign firms operating in the industrial sector, around 17.5 thousand of them or 19% of the total of 93,016 foreign-owned companies (as of April 2003) tend to be on average much larger than in other sectors.

Table 8: *Stock of FDI and number of companies by country of origin as of April 30, 2003*

.	Number of companies (in '000)	Share in total capital invested	Average per firm (in US$)	Invested capital (in US$ '000)
Netherlands	1.6	18%	1,023,175	1,661,636
Germany	10.4	10%	88,793	927,534
France	2.9	7%	237,911	695,415
USA	3.6	7%	187,514	677,487
Italy	13.0	6%	45,494	593,509
Subtotal	31.7	48%	143,927	4,555,581
Memorandum: other large in terms of number of companies				
Turkey	8.4	4%	47,819	401,963
China	8.2	1%	12,964	105,680
Other	42.5	46%	102,789	4,372,527
Total	90.7	100%	100,500	9,120,260

Source: NTRO 2003.

The average size of a firm in terms of foreign capital invested as well as the number of varies by a sector of the economy. Foreign firms operating in the industrial sector, around 17.5 thousand of them or 19% of the total, tend to be on average much larger than in other sectors (Table 9). Given their concentration in clothing and footwear industries, their average size does not strike one as particularly low. Low tech and unskilled labor industrial operations are not capital intensive—products of these industrial activities have been Romania's major exports.

Table 9: *Composition of FDI inward stock, number of registered companies and average capital per firm as of April 30, 2003*

	Share in total invested capital	Capital invested (in million of US dollars)	Number of companies (in thousand)	Average capital per firm (in thousand of US$)
Industry	53.7%	5,067	17.5	290
Services	16.4%	1,547	10.8	143
Wholesale trade	11.2%	1,057	34.1	31
Retail trade	4.8%	453	16.6	27
Transport	8.3%	783	3.2	248
Other sectors	5.6%	528	10.9	49
TOTAL	100%	9,436	93.0	101

Source: NTRO 2003.

[9] See NTOR 2003, p. 8. National Trade Registry (NTOR) provides information about statutory or subscribed capital. In contrast to balance-of-payments data, Trade Registry information includes re-invested profits by foreign companies.

A very large number of foreign firms combined with relatively business friendly environment may explain uniqueness of Romania in terms of the existence of very significant knowledge spillovers to domestic firms, as an econometric study of CEEC-8 (excluding Latvia and Lithuania) has shown (Damijan et al. 2003). Javorcik and Spatareanu (2004) also find positive horizontal spillovers in Romania. Indeed, both sheer numbers and a small average size of German and Italian companies are particularly striking indicating their significant presence in foreign trade-related activities. As various publications suggest, 13 thousand Italian firms, either fully or partly owned, have most likely contributed to Italy being Romania's single most important trading partner accounting for almost one-fourth of Romania's total trade turnover.[10] Judging by the composition of this exchange with clothing and footwear accounting for around 60% of Romanian exports and textile and footwear parts for around 40% of Romanian imports from Italy, some of these firms have been heavily involved in organizing processing activities. In 2002 90% of footwear parts and 64% of yarns—two major inputs of Romanian exports to the EU—imported into Romania from the EU originated in Italy. The presence of many small Italian firms has been probably responsible for the fact that textile and leather industries have been characterized by much higher foreign penetration than in other CEEC-10 (Hunya 2002, p. 391).

Furthermore, a relatively large presence of U.S. and East Asian companies in downstream sectors may be also a factor contributing to stronger overall effects of lower FDI. Javorcik, Saggi and Spatareanu (2003) note a positive association between their presence and the productivity of Romanian firms in the supplying industries. No similar link has been found for European investors operating in downstream sectors. [11]

Last but not least, the share of FDI in total capital formation together with the length of a period offers some insights as to their relative weight in the economy. The average share of FDI in Gross Domestic Investment of around 20% in the 1997-01 period (calculated from data in IMF 2002b) suggests a significant presence of foreign firms.[12] With around one-fifth of domestic investment carried out by foreign firms, the associated influx of management skills and technology has already had a beneficial effect on the entire economy. With foreign firms accounting already in 2000 for 44% of total Romanian manufacturing exports (Hunya 2002, p. 390),[13] the increase in the FDI stock in industry from around US$ 3 billion in 2000 to US$ 5 billion in 2002 has also unavoidably raised the presence of foreign affiliates in Romania's exports.

Thus, the answer to the riddle of "so little FDI producing so strong trade effects" appears to lie in a large number of foreign owned firms operating in relatively low tech areas and, because of it, having strong ties to domestically owned firms. Under these circumstances, the impact of FDI has been much stronger than the values of FDI inflows might indicate.

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[10] For very interesting insights on Italian firms in Romania, see Cristescu-Voica (2003).

[11] The logic behind this finding is straightforward. Asian and US firms, with strong home links, have to look for suppliers within the Pan-European trade area to meet the rule-of-origin conditions and not to pay duties on imports. On the other hand, European firms usually have their supply links within the EU.

[12] According to another estimate, the average FDI inflows as a share of gross fixed capital formation over 1996-2000 amounted to 15.4% (UNCTAD 2002).

[13] According to the UN, foreign affiliates accounted for 21% of total Romanian exports. This is rather a small share by CEEC-10 standards. Consider that their share in total Hungarian exports was 80% in 1999, 60% in Estonian exports, and 56% in Polish exports both in 2000 (UN 2003, p. 19). It seems, however, that Hunya's estimate is more credible, as it was based on a detailed analysis of database covering all manufacturing enterprises that file an income statement in 1998-2000. He observes: "As of 2000, Romanian penetration indicators are similar to those in the Czech Republic 1 or 2 years earlier." (Hunya 2002, p. 390).

5. PATTERNS OF TRADE INTEGRATION INTO EU: IMPLICATIONS FOR SUSTAINABILITY OF EXPORT PERFORMANCE

Leaving aside domestic capacity constraints and barring macroeconomic shocks, patterns of trade integration into the EU, accounting for the bulk of Romanian exports, offer clues as to their sustainability. This requires assessing the scope of foreign capital and foreign owned firms and their weight in the economy, the links between factor endowment and factor content of exports and the extent to domestic firms have become part of supply chains organized around large MNCs.

A. Factor intensities of EU-oriented exports: old patterns persist but the change may be underway

Commodity trade patterns tend to reflect differences in comparative advantage as determined by different factor endowments among countries provided that competitive markets are allowed to shape allocation of resources. A country tends to export those goods that use factors in relative abundance—an outcome of a competitive market mechanism efficiently allocating resources. Exploring a full causal chain linking factor endowments, comparative advantage, and trade patterns is not relevant for this discussion. The question that is germane here concerns broad changes in relative factor intensities as revealed by exports to the EU and their link to sustainability of export performance.

Gap between endowments and factor intensities of exports?

Available statistical data suggest that the educational level with 82 percent participation in secondary education is significantly higher than in countries at a similar level of economic development (see WDI 2003, p. 82). This is so despite the fact that Romania's expenditure on education as percent of GDP in 2000 of 2.3% was the lowest among CEEC-10. Hourly labor costs in industry and services were also among the lowest in 2000—only in Bulgaria hourly rate was lower (EC 2003). Last but not least, with favorable climate and soil, Romania should be a good performer in agricultural exports.

Hence, considering Romania's large pool of low-cost skilled labor and conditions favoring agriculture, one would expect that skilled labor intensive products together with natural resource-intensive products would dominate its EU-oriented export basket at least after some adjustment period.

Developments in Romanian EU-oriented exports do not corroborate these expectations. Even allowing for substitutability between capital- and skilled labor-intensive products, there are no indications that the closing of the gap between endowment in skilled labor force and EU-directed export basket has begun. Despite some volatility, the composition of exports in terms of factor intensities has remained remarkably stable. If anything, there was a slight decrease in specialization, as revealed in the change in values of ESI in skilled labor intensive products as well as in natural resource intensive products (Table 10). The share of skilled labor intensive exports grew strongly during the 1993-96-expansion phase from 10% to 15%. But thereafter the performance of skilled labor intensive exports was highly disappointing—its share in EU external imports over 1993-2002 registered the lowest increase among product groups according to their intensities. It fell further in 2002 even below its level in 1993, although its value was more than four-times higher than in 1993. The aggregate share of skilled labor intensive and capital intensive products (which often require inputs of skilled labor) in EU-oriented exports has also failed to grow since 1996.

Neither has Romania's export profile moved toward natural resource intensive products.[14] The share of these exports in EU-oriented exports significantly fell during the current expansion phase from 19% in 1999 to 13% in 2002. In 1993, 1996-98 and 2001-02, Romania was a net importer of resource intensive products. In remaining years, it was a small net exporter.

Table 10. *Factor Intensity of Romania's Trade with the European Union, 1993-2002*

Factor Intensity Product	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002 est.
Romania's Exports to EU: ($ million)										
Natural Resource Based	338	641	986	837	985	1,004	1,154	1,278	1,428	1,330
Unskilled Labor	1,295	1,670	2,194	2,476	2,824	3,352	**3,630**	3,887	4,762	6,497
Capital Intensive	200	366	578	644	650	767	842	1,307	1,429	**1,534**
Skilled Labor	214	406	**686**	680	685	763	611	653	807	981
All above products	2,045	3,082	4,443	4,637	5,143	5,885	6,238	7,125	8,425	10,343
Composition of Romania's Exports to EU: (%)										
Natural Resource Based	17	21	22	18	19	17	19	18	17	13
Unskilled Labor	63	54	49	53	55	57	58	55	57	63
Capital Intensive	10	12	13	14	13	13	14	18	17	15
Skilled Labor	10	13	15	15	13	13	10	9	10	9
Romania's Export Specialization Index in EU										
Natural Resource Based	0.51	0.65	0.70	0.57	0.62	0.64	0.71	0.61	0.58	0.50
Unskilled Labor	**3.71**	**3.31**	**3.18**	**3.40**	**3.44**	**3.57**	**3.71**	**3.81**	**3.79**	**3.94**
Capital Intensive	0.29	0.34	0.36	0.38	0.34	0.33	0.33	0.46	0.43	0.37
Skilled Labor	0.63	0.79	0.93	0.90	0.81	0.73	0.55	0.57	0.57	0.53
Share in EU's External Imports: (%)										
Natural Resource Based	0.16	0.28	0.37	0.31	0.36	0.41	0.47	0.42	0.48	0.55
Unskilled Labor	1.19	1.45	1.70	1.82	2.02	2.28	2.44	2.58	3.10	4.34
Capital Intensive	0.09	0.15	0.19	0.20	0.20	0.21	0.22	0.31	0.35	0.41
Skilled Labor	0.20	0.35	0.50	0.48	0.48	0.47	0.36	0.38	0.47	0.58
All above products	0.32	0.44	0.53	0.54	0.59	0.64	0.66	0.68	0.82	1.10
Romania's Net Exports to EU: ($ million)										
Natural Resource Based	-362	61	7	-311	-59	-103	96	71	-90	-457
Unskilled Labor	654	826	943	1,076	1,215	1,425	1,657	1,717	2,238	3,191
Capital Intensive	-745	-843	-1,118	-1,415	-1,376	-1,742	-1,587	-1,792	-1,777	-2,267
Skilled Labor	-283	-66	-77	-211	-147	-455	-423	-671	-1,037	-1,515
All above products	-735	-23	-245	-860	-367	-875	-257	-675	-665	-1,048

Source: Based on EU as reporter from UN COMTRADE Statistics.

Agricultural exports drove these developments. Their value at around US$ 350 million remained unchanged over that period, except in 2000 when it fell to US$ 305 million. The value of total agricultural exports (US$ 880 million) was in 2002 lower than at its peak level of almost US$ 1 billion in 1996 as well as in 1999 (US$ 885 million). This corroborates one of the findings of the Agriculture Chapter of this study that the task of creating an agricultural sector capable of producing internationally competitive products has yet to be triggered.

Exports to EU sunrise markets: the change in factor intensities underway?

Romania has retained its specialization in unskilled labor intensive products in which it has strong and recently growing comparative advantage in EU markets. Its share in EU external imports

[14] Natural resource based products consist mainly agricultural products and materials accounting for around 85% (agricultural materials—10%) of these exports to the EU. After a strong growth during the first phase, the growth was flat over 1996-2002 at an average annual rate of 5%.

increased almost four times from 1.2% in 1993 to 4.3% in 2003, and this is the only product group with positive strong net export performance. The value of these exports has been consistently almost twice as high as the value of imports of unskilled labor intensive products from the EU. While exports of skilled labor intensive products experienced the fastest growth during the first expansion phase, exports of unskilled labor intensive dominated the stagnation phase and those of capital intensive products registered the largest increase in the third expansion phase followed by unskilled labor intensive products.

However, sunrise exports, namely, exports of products with strong import demand growth in the EU, suggest a possible change in factor intensities in the near future (Table 11).[15] Over the last three years, i.e., during the current expansionary phase, the share of capital intensive products dramatically increased from 23% in 1999 to 70% in 2000 thanks to exports of telecommunication equipment (SITC 7249). Its share in sunrise EU-oriented Romanian exports increased from 20% in 1998-99 to 60% in 2000-02.

Table 11: *Values, Shares and Factor Intensities of Romania's Exports in EU Sunrise Markets, 1995-2002*

								Estimated
EU Sunrise Product (SITC-4 Rev 1)	1995	1996	1997	1998	1999	2000	2001	2002
Value of Sunrise Exports to EU (million of US$)	84	74	90	111	178	483	448	324
Share in EU-destined Total Exports (in %)	1.9	1.6	1.7	1.9	2.8	6.8	5.3	3.1
Share in EU External Imports (in %)	0.2	0.1	0.1	0.1	0.2	0.4	0.4	0.3
Growth Rate of Sunrise Exports (in %)	27	-12	21	23	59	174	-7	-28
Share of Natural Resource Intensive	**61.4**	32.7	51.3	30.9	8.2	5.3	21.8	3.6
Share of Unskilled Labor Intensive	24.0	46.6	30.0	37.5	**62.4**	23.3	15.2	40.1
Share of Capital Intensive	6.5	9.6	10.5	23.1	23.3	**70.0**	61.2	52.7
Share of Skilled Labor Intensive	8.2	**11.2**	8.3	8.5	6.1	1.4	1.8	3.5

Notes: Sunrise products are based on the values of EU external imports above $50 million in 1995 and the average annual growth rates of at least 10% during 1995-2001.
Source: Based on EU as reporter from UN COMTRADE Statistics.

Except in 2002,[16] the dynamic EU markets have absorbed a growing share of Romanian exports with the value of these exports having had increased five-fold between 1995 and 2001. Telecommunication equipment (SITC. 7249) and ships and boats (7353) have been star performers. The value of EU-destined exports rose from US$ 1 million in 1995 to US$ 34 million in 1999 and US$ 336 million in 2000. Subsequently, these exports fell to an estimated US$ 166 million in 2002. Ships and boats saw the value of their EU exports increasing from US$ 14 million to US$ 100 million in 1999 and US$ 108 million in 2002. In consequence, the share of capital equipment (SITC. 7) in Romanian sunrise exports increased from 29% in 1995 to 85% in 1999 and 89% in 2002.

The presence in dynamic markets and emerging specialization in more processed, capital intensive products provides some empirical support to the claim that the current export expansion, barring macroeconomic shocks, may be sustainable.

[15] Table 7 summarizes the growth rates and factor intensities of products meeting two criteria. First, growth in EU-external imports exceeded 10 percent in 1999-2001 and the value of EU imports exceeded US$50 million. Second, the value of the Romanian exports concerned exceeded US$10,000 in 1999, with average annual growth rates exceeding 3 percent in 1999-2002.

[16] As mentioned earlier, this, however, may change once all EU-member countries report trade data for 2002.

Concluding comment

Romanian EU-oriented export basket still appears to diverge from Romania's relative endowments in production factors in two dimensions. The divergence over a relatively long time is an indication that government policies have prevented the emergence of competitive markets to allocate resources to sectors with the potential comparative advantage. Agricultural sector has not succeeded in exploiting its favorable climate conditions. As it is argued in this report (see chapter on agriculture), government policies favored large-scale farming and prevented the emergence of internationally competitive agricultural sector. Furthermore, skilled labor force has only marginally participated in EU-oriented export expansion. Assuming that skilled labor was significantly "under-presented" in Romanian exports in 1993, the 'endowment' gap was not closed. This sets Romania apart from many CEEC-9 economies, where this gap was closed mainly thanks to FDI. This does not appear to have happened as yet in Romania.

B. International production and distribution networks and trade in parts

Changes in global business organization, consisting of the rapid expansion of MNCs and related trade and investment activities, have been behind the globalization drive over the last two decades. Falling transportation and communication costs have created opportunities for outsourcing just-in-time production and supply-chain management that has been altering the competitive landscape of many countries by relocating business activities and providing a new source of entry into international markets. Value-chains have become increasing sliced with the individual production stages being moved to countries with corresponding comparative advantages. It has already had far-reaching implications for the global division of labor leading to fragmentation of the production process within vertically integrated manufacturing industries. Trade related to this new division of labor offering direct access to global networks of a parent company is referred to as 'intra-product' trade.

Participation in international networks—in both 'traditional' (clothing and footwear) and more advanced (automotive, etc.)—yields several important benefits to its participants overall contributing to sustainability of exports: First, it brings outside managerial and technological expertise to a local company. Second, becoming part of a production and distribution network of an MNC offers a 'cheap way' to market products, as firms do not incur marketing cost, which are usually quite significant for new comers. Last but not least, since parent companies sell their products in many different markets, its suppliers are no longer dependent on vicissitudes in import demand in any single market.

How have Romanian firms fared in this respect? While potential production costs and proximity to most important markets are the necessary conditions to attract FDI associated with establishing outside 'production blocs,' these are not sufficient. Operations of value-chains are particularly vulnerable to potential delays and disruptions among various stages of the supply chain. Ultimately, they determine location decisions of MNCs. Burdensome customs procedures, transportation delays or telecommunications problems usually prevent the emergence of border-spanning production networks.

Developments in network exports

Have Romanian firms become part this new division of labor based on production fragmentation and sharing? This section seeks to provide an answer by examining the participation of Romanian producers in global production networks operating in EU markets. The main industries involved in networking include automobiles, television and radio receivers, sewing machines, office equipment, electrical machinery, power and machine tools, typewriters, cameras, and watches (USITC 1996). The focus of this section will be on developments in trade in three major networks—automotive, electronics (referred to as the Information Revolution (IR) network), and furniture. The automotive and electronic networks usually involve firms with foreign

participation, either as joint ventures or subsidiaries, although there are instances of outsourcing as well. The furniture network operates mainly through marketing organizations that provide suppliers with precise specifications concerning the final product and the parts and components to be used. In contrast to the automotive and IR networks, it is less capital intensive and much more unskilled-labor-intensive, although this does not necessarily apply to many parts and components used in the assembly of the final product. For these reasons, leaving aside outward processing in clothing, this has been the first network to emerge in a number of transition economies (Kaminski and Ng 2001).

Romania fits this pattern. In 1993 the furniture network was the only one to generate significant export earnings. It accounted for 95% of all exports by networks in 1993-94, and with 65% share in 2002 continues to dominate trade in EU-centered production and distribution networks.

An examination of data tabulated in Table 12 leads to the following observations. First, trade of networks has yet to become the main lever of Romania's trade, as it has been the case of integration into EU production centers of such CEEC economies as Czech Republic, Estonia, Hungary, Slovakia and, to a lesser extent, Poland.[17] Except for furniture (both final products and parts), their share in EU external imports were well below the average presence of Romanian products in EU markets and the values of ESI were well below unity. The aggregate share of network export had been falling until 1999, subsequently it increased from 8% to 11% and 10% in 2000 and 2001 and fell back to 8% in 2002. The latter is subject to revision once full EU trade data are disclosed. The Romanian data indicate that this share might be higher.

Yet the average rate of network export growth of 24%, mainly due to 59% increase in the value of exports of Information Revolution network in 2000, was higher than the average rate of Romanian imports into the EU of 19% per year.[18] The reasons for slower growth in network exports of 5% and 8% in 2001 and 2002 respectively are not clear. But, nonetheless, the data seems to point to the emergence of intra-product trade, as exports of parts account for a growing or very sizable share of imports. For instance, exports of information revolution parts as percentage of their imports grew from 8% in 1998 to 41% and 66% in 2000 and 2001. In terms of value, it rose from US$ 18 million in 1998 to US $251 million in 2001.

Second, positive development is the growth in relative significance of exports of parts and components, which indicates that Romanian firms have begun participating in supply chains. These are usually lucrative activities providing stability to commercial relations and creating opportunities of supplying more than one single producer of a final product. Parts and components drove exports of the automotive network accounting for 97% of the network's total EU-destined exports up from 33% in 1993.[19] Similar change occurred in Information Revolution network (from 18% in 1993 to 74% in 2002) and furniture network (from 4% to 14%).

Third, although furniture remains the major network, the Information Revolution network recorded the largest gains over the last decade. Its share in network exports exploded in 2000 rising to 44% up from 7% in 1999. Soaring exports of electric telephonic and telegraphic lines

[17] This share may be different, as EU foreign trade data for 2002 were not fully reported to the UN COMTRADE database at the time of this writing (November 2003). Romanian data indicate that the share may be larger. According to Romanian data, there was no contraction in exports.

[18] The value of exports of telecommunication parts and equipment increased from US$ 35 million in 1999 to US$ 343 million in 2000 and fell to US$ 301 million in 2001 and US$ 175 million in 2002.

[19] Two most important products were parts and accessories (SITC. 784) with the value of exports increasing from US$ 60 million in 1999 to US$ 119 million in 2002, and parts of the trucks (SITC. 74419) with the value of US$ 5.5 million in 2002 up from US$ 5 thousand in 2000-01.

(SITC 7641) and apparatus parts (SITC. 7649) contributed to this outcome. The share of automotive network has steadily increased its share to 16% in 2002.

Table 12: *Developments in trade with EU in three major networks, 1993-2002*

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002 (est)
Export Values to EU ($ '000)					**Automotive network**					
Final	9,603	11,162	15,854	16,722	12,363	10,417	7,393	5,147	4,656	3,862
Parts and components	4,763	6,343	29,703	52,389	44,261	52,505	59,401	41,559	92,906	134,914
Total	14,366	17,505	45,557	69,111	56,624	62,922	66,793	46,706	97,562	138,776
Share in Network Exports	4%	5%	10%	15%	13%	13%	13%	6%	12%	16%
Exports as % of imports										
Final	7%	9%	11%	11%	7%	3%	3%	1%	1%	1%
Parts and components	18%	22%	63%	82%	78%	85%	112%	45%	74%	61%
As % of EU external imports										
Final motor vehicles	0.04	0.05	0.06	0.06	0.04	0.03	0.02	0.01	0.01	0.01
Parts and components	0.04	0.04	0.16	0.27	0.22	0.23	0.24	0.16	0.33	0.48
Specialization indices										
Final motor vehicles	0.14	0.11	0.11	0.11	0.07	0.04	0.03	0.02	0.02	0.01
Parts and components	0.12	0.10	0.30	0.52	0.38	0.37	0.37	0.24	0.42	0.45
Export Values to EU ($ '000)					**Information Revolution network**					
Final	5,408	4,769	4,105	4,379	2,852	4,119	3,738	80,066	50,362	46,070
Parts & components	1,215	871	1,797	2,553	2,586	18,184	31,600	263,035	251,028	129,403
Total	6,623	5,640	5,902	6,932	5,438	22,304	35,338	343,101	301,390	175,474
Exports as % of imports										
Final	39%	32%	14%	13%	3%	2%	3%	55%	37%	30%
Parts and components	2%	1%	1%	2%	1%	**8%**	**11%**	**41%**	**66%**	**54%**
Share in Network Exports	2%	2%	1%	1%	1%	5%	7%	44%	37%	20%
As % of EU external imports										
Final	0.00	0.03	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.01
Parts & components	0.00	0.00	0.00	0.01	0.02	0.02	0.21	0.19	0.21	0.03
Specialization Indices										
Final	0.13	0.07	0.05	0.06	0.04	0.04	0.03	0.55	0.28	0.18
Parts	0.02	0.01	0.01	0.01	0.01	0.06	0.10	0.59	0.59	0.29
Export Values to EU ($ '000)					**Furniture network**					
Final furniture	290,579	324,043	377,859	364,693	339,890	342,225	342,754	349,169	368,705	490,934
Parts & components	11,079	12,409	17,065	26,017	35,790	44,354	50,274	47,950	55,091	80,407
Total	301,657	336,452	394,924	390,710	375,680	386,579	393,028	397,119	423,796	571,341
Exports as % of imports										
Final	2547%	1571%	1040%	910%	969%	946%	1259%	1048%	888%	974%
Parts and components	344%	242%	169%	244%	394%	439%	344%	338%	329%	428%
Share in Network Exports	93%	94%	88%	84%	86%	82%	79%	50%	52%	65%
As % of EU external imports										
Final furniture	5.27	5.25	5.10	4.61	4.35	3.94	3.64	3.64	3.75	4.75
Parts & components	0.62	0.57	0.60	0.82	1.08	1.13	1.16	1.08	1.11	1.42
Specialization Indices										
Final furniture	16.32	11.92	9.64	8.74	7.60	6.28	5.67	5.51	4.74	4.52
Parts & components	1.91	1.30	1.14	1.56	1.90	1.80	1.81	1.63	1.40	1.35
Memorandum:										
Total network exports	322,647	359,597	446,383	466,753	437,742	471,805	495,159	786,926	822,748	885,590
Share in exports to EU	15%	11%	10%	10%	8%	8%	8%	11%	10%	8%

Source: Own calculations based on EU data as reported to the UN COMTRADE database.

Last but not least, in all networks there are clear signs of two-way trade. While except for furniture network, Romania is a net importer in both final products and parts and components, significant increases in exports have accompanied imports. This suggests the emergence of stable commercial links based on intra-product specialization.

While there are overall clear signs of significant progress in integrating of Romanian firms into the European production structures, volatility of exports may raise concerns as to their sustainability. The variation in growth rates of exports was huge with rates ranging from –30% to 282% on annual basis over 1994-02 (Table 13). If anything, this may point to the absence of well-established commercial relations between Romanian suppliers and EU firms.

Table 13: ***Annual change in the value of EU-oriented exports of networks, 1994-2002***

	1994	1995	1996	1997	1998	1999	2000	2001	2002
Information Revolution	10%	122%	48%	-18%	37%	20%	282%	2%	-21%
Automotive network	22%	160%	52%	-18%	11%	6%	-30%	109%	42%
Furniture network	12%	17%	-3%	-7%	1%	0%	2%	6%	33%
Total exports	51%	42%	3%	11%	14%	6%	14%	19%	25%

Source: As in Table 11.

The picture that emerges from this analysis can be summarized as follows: In comparison to most other CEEC-9, network trade accounts for a relatively small portion of Romanian exports. Except for furniture, trade in remaining networks appears to be moving from one to another transaction. This may indicate that most Romanian firms have yet to establish stable position in EU supply chains. But this conclusion does not seem to be warranted as the analysis of trade in parts strongly suggests.

Trade in parts: expansion and diversification

The network analysis does not capture all intra-product trade. Some additional insights into developments in this trade can be obtained by examining specialization patterns in trade in parts. Furthermore, as this is also the case of network trade, a firm supplying parts is less vulnerable to swings in external demand, as sales of a final product, usually carried out by MNCs, span over world markets. Hence, an increase in exports of parts augurs well for sustainability of exports.

Following Ng and Yeats (1999), we identify 60 SITC. Rev. 2 items capturing trade in parts. Two observations can be derived from data reported in Table 14. First, parts have contributed significantly to Romania's export expansion. While the share of imports of parts in total imports of manufactured goods (excluding chemicals) has remained relatively stable, their share in exports more than doubled between 1998 and 2000 and kept with the pace of rapidly expanding overall exports.

Table 14: *Trade in parts and share of EU (in million of US dollars and percent)*

World	1993	1996	1997	1998	1999	2000	2001	2002
Total exports of parts	182	298	382	355	495	868	1,008	1,238
Total imports of parts	401	833	819	1,034	845	1,137	1,305	1,427
Exports of parts as percentage of imports of parts	45%	36%	47%	34%	59%	76%	77%	87%
Share of parts in manufactured exports (chemicals excl.)	5.5%	5.5%	6.4%	5.7%	7.9%	11.8%	11.7%	11.7%
Share of parts in manufactures imports	14.0%	13.3%	12.4%	13.8%	12.2%	13.2%	12.8%	11.7%
Share of the EU in								
Total exports of parts	15%	55%	45%	61%	66%	76%	77%	68%
Total imports of parts	63%	51%	61%	58%	64%	67%	61%	62%
Memorandum: Share of parts in EU-oriented manufactured exports (chemicals excluded)	1.8%	4.3%	4.3%	4.7%	6.9%	11.7%	11.5%	10.4%
Share of parts in ROW-oriented manufactured exports excluding chemicals	8.7%	8.3%	10.9%	8.3%	11.1%	12.2%	12.5%	15.6%

Source: UN COMTRADE Statistics.

Second, the expansion in exports of parts was not limited to the EU, although the EU has been taking since 2000 more than two thirds of these exports. The share of parts in exports to other markets than in the increased from 11% in 1999 to 16% in 2002. It is noteworthy that exports of parts to ROW markets registered much stronger growth than to the EU, with the share of the latter falling from 77% in 2001 to 68% in 2002.

While parts traded within information revolution, furniture and automotive networks dominate in terms of value, other parts and components have emerged as significant exports suggesting much wider export specialization than suggested by the networks analysis alone. Consider first that in 1993 only four out of 60 items had comparative advantage, i.e., ESI above unity, in EU markets (Annex Table 8). Their number increased to 15 n 1996 and to 17 products in 2002. While in terms of value the 'network' parts dominate the picture (see below), other parts gained in terms of export specialization in EU markets. Among these four product groups with values of ESI above unity in 1993 only parts of chairs and seats (furniture network) would qualify as a network trade. Interestingly, the situation did not change by 2002, although the number of parts with ESI above unity dramatically increased suggesting significant specialization in 'non-network' parts.

Yet, 'network' parts still tower above exports of parts. According to the EU data (incomplete for 2002), their share in EU-oriented exports of parts increased from 35% in 1999 to 63% in 2000 and fell to 59% in 2001 and 50% in 2002. Among EU-oriented exports of parts with the value sales in EU markets exceeding US$ 10 million in 2002 there were seven product groups (out of 13) not covered by the 'network' trade (Annex Table 9 in bold letters). The value of 'non-network' exports significantly increased between 1998 and 2000, but at a slower rate than exports of 'network' parts such as telecommunication equipment (information revolution network) or parts of engines (automotive network). In both 2001 and 2002, 'non-network' exports grew at annual rates of 17 and 18%, while the value of 'network' exports of parts contracted 2% in 2001 and a whopping 18% in 2002. As indicated earlier, the latter figure may change once the EU publishes full trade data for 2002.

In sum, the above analysis indicates the growing specialization and competitiveness in EU markets of Romanian exporters of parts not covered by 'network' trade. It also suggests a significant industrial restructuring that has not been captured by the network analysis.

Participation in traditional value chains: textiles/clothing and footwear

Clothing and, to a lesser extent, footwear have been the quintessential engines of growth for many CEEC-10 during the initial stages of transition. They have accounted for a significant share of value added and manufacturing employment, with significant implications for poverty reduction. With labor cost going up, many of outward processing operations in the clothing sector moved to other countries in Central and Eastern Europe through the 1990s. These products, however, still dominate exports of some transition economies including Romania. Textiles and clothing together with footwear play a huge role in Romania's EU-oriented exports accounting for almost half of exports to the EU (47% in 2002) over the last decade and one third of total exports. Both sectors appear to be firmly entrenched into EU clothing and footwear value chains.

An important question is the extent to which Romania remains solely an assembly shop for EU firms taking advantage of available cheap, often women, labor force. Or has the importance of such inputs for exports as footwear parts and textiles declined over time indicating progress in the development of backward linkages? Have Romanian clothing producers moved from simple cut-make-trim operations, where buyers supply fabrics, to FOB operations, with the clothing firm responsible for obtaining fabrics? While without the survey of firms in sectors or access to input-output tables it is impossible to give an unambiguous answer to these queries, an examination of trade date offers some clues. Using SITC. Rev. 2, we have identified major direct inputs for the production of footwear and garments. We treat all textiles (as identified under the SITC. Rev.2 64

and 899 headings) and footwear parts (SITC. Rev.2. 623) as inputs, and all clothing (as reported under the SITC. 84 heading) and footwear as outputs (SITC. 85101 through 85104).[20] The results are presented in Table 15 below.

Table 15: *Trade in textiles/clothing (TC) and footwear and parts (FP) in 1993-2004 (in million of US dollars and percent)*

TEXTILES AND CLOTHING	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Exports of textiles and clothing	770	1,134	1,541	1,729	1,944	2,173	2,212	2,526	3,023	3,563
Exports of textiles as % of exports of textiles and clothing	17%	12%	12%	10%	10%	9%	8%	8%	8%	9%
Total imports of textiles	481	625	939	1,055	1,258	1,475	1,577	1,720	2,016	2,374
Imports of textiles as % of exports of textiles and clothing	62%	55%	61%	61%	65%	68%	**71%**	68%	67%	67%
Memorandum: share of textiles and clothing in										
Total exports	15.7%	18.4%	19.5%	21.4%	23.1%	26.2%	26.0%	24.4%	26.5%	25.7%
in EU-oriented exports	31.5%	33.4%	31.7%	33.8%	36.5%	36.9%	36.5%	34.8%	35.7%	35.1%
FOOTWEAR	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Exports of parts and footwear	155	307	423	500	540	603	678	785	976	1,158
Exports of parts as % of exports of footwear	48%	68%	67%	76%	66%	62%	58%	55%	52%	53%
Total imports of parts	25	45	78	103	125	144	154	178	210	231
Imports of parts as % of exports of parts and footwear	16%	15%	18%	21%	23%	**24%**	23%	23%	22%	20%
Memorandum: share of footwear parts and footwear in										
Total exports	3.2%	5.0%	5.3%	6.2%	6.4%	7.3%	8.0%	7.6%	8.6%	8.3%
EU-oriented exports	6.2%	9.4%	9.2%	10.2%	10.9%	11.0%	11.7%	11.6%	12.3%	12.0%

Source: Own calculations based on UN COMTRADE Statistics as reported by Romania.

Data presented in Table 15 suggest that overall the importance of imported inputs for final exports appears to have slightly declined during the current expansion phase indicating the development of backward linkages and increased sophistication of domestic producers of footwear parts and textiles. This may also point to the declining weight of simple cut-make-trim operations in the garment sector. The common feature of developments in both sectors has been that the expansion in exports has not outstripped the growth in imports of inputs in the 1993-2002 period. In fact, imports of parts as percent of exports of final products and parts, a crude measure of the importance of imported materials for final product exports, has been declining since 1999 for textiles/clothing and since 1998 for footwear.[21] They are significantly higher for clothing than for footwear.

There are two other indications of a probable increase in local outsourcing and further insertion of firms operating in Romania into global footwear and clothing markets is expansion in exports of parts. First, although their shares in total exports of respective sectors declined, the value of these exports has significantly increased. Exports of textiles in 2002 increased 87% over 1999, and the value of exports footwear parts was 62% higher over the same period. Almost all textiles and three-fourths of footwear parts have been shipped to the EU, apparently, for further processing (Table 16).

[20] This is clearly a gross simplification for the following reasons: First, imported inputs may be used in the production of final goods sold domestically. Second, the trade classification does not allow identifying indirect inputs, e.g., leather used to produce footwear uppers or soles. Last but not least, domestic firms may export rather than supply parts to local producers of final products for exports.

[21] Similar trends are discernible in terms of imports of parts as percent of final exports. This index fell from 40% in 1996-97 to 30% in 2002, displaying a consistent downward trend. The index for textile/clothing declined from the peak level of 72%

Italian firms have been mainly responsible for organizing the insertion of Romanian firms into global networks of production and distribution of footwear and clothing. This is particularly visible in the case of footwear with Italy taking around 90% of Romanian exports of footwear parts. This share for textiles is around one fifth of their total exports.

Table 16: *Share of the EU in Romania's exports of textiles and footwear parts in 1993-2004*

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Textiles	35%	51%	52%	49%	53%	67%	71%	71%	72%	74%
Footwear parts	99%	100%	100%	99%	99%	99%	97%	98%	98%	96%

Source: Own calculations based on UN COMTRADE Statistics as reported by Romania.

Second, the share of outward processing (OPT), as reported in Eurostat database, in Romanian exports has been declining since 1999 when it reached 22 percent. In 2002, it was down to 11 percent. On the one hand, this may suggest that Romania has been losing some OPT contracts, on the other, this may also indicate the increase of local outsourcing.

The large share of Italy in Romanian trade in clothing and footwear and their inputs provides extra credence to our earlier observation (Section 4) about the role played by Italian-owned firms in organizing local networks of production. These firms not only provide necessary links with Italian retailers and producers but are themselves an integral part of the global garment and textile value chain. The implication is that these are not footloose investors. They have stake in maintaining competitiveness in foreign markets in operations conducted from Romania, which bode well for the survival of the Romanian textile sector following the dismantling of EU quota regime on clothing imports in 2005 (se below).

In all, developments in trade of these two sectors seem to support the following observations: These two sectors are not enclaves, but appear to be soundly immersed in the domestic economy. Both sectors have been competitive in EU markets indicating significant progress in industrial restructuring. They have become part of global value chains, organized mainly by Italian firms.

Concluding comment

The picture that emerges from this analysis can be summarized as follows: In comparison to most other CEEC-9, network trade accounts for a relatively small portion of Romanian exports. Except for furniture, trade in remaining networks appears to be moving from one to another transaction. This may indicate that many Romanian firms have yet to establish stable position in EU supply chains within the three networks.

On the other hand, rapid expansion in trade in parts and the successful insertion of Romanian producers in global value chains of clothing and footwear appear to show that (a) the current expansion is based on solid foundation and (b) there is ongoing shift toward finding new niches in external markets.

C. The challenge of impeding change in trade regime for textiles and clothing

Dismantling of EU quantitative restrictions on textiles and clothing imports under the WTO Agreement on Textiles and Clothing (TC) on January 1, 2005 will bring about a significant change in the regime governing international trade of these products. Trade in TC, now subject to quotas restricting competition, will become like trade in other industrial products. With dismantling of quotas, MFN tariff rates will be the main border measure protecting domestic and preferential suppliers. The average EU MFN tariff rate of 9% on TC does not offer sufficient preferential margins that might protect Romanian or, for that matter, EU producers as well as other preferential suppliers from the possible surge in exports from the world's most cost-efficient suppliers.

The challenge facing Romanian suppliers is that they will have to compete with most efficient suppliers on equal footing. China in particular is regarded as the greatest threat, with its huge production capacities and pool of cheap labor force. Its performance in EU markets has confirmed these fears. The EU has progressively eliminated quotas on some product categories since China's accession to the EU in 1991. In all those liberalized product categories, unit prices fell and China's share has exploded (EC 2003b). The adjustments created by Chinese exports for EU domestic and external suppliers are not over yet, as almost half of Chinese TC exports are still subject to quotas.

Romania has some assets vis-à-vis many TC exporters from non-European developing countries. First, geographical proximity may give Romanian firms comparative advantage vis-à-vis Asian or African competitors in some production lines. Clothing is a buyer-driven sector, where the ability to respond quickly to new fashion trends is crucial to firms' survival in global markets. But so is the ability to quickly supply an international retailer. Geographical proximity is an important factor. Second, because of large presence of foreign owned firms with unique commercial links to EU producers and distributors, Romania may be better positioned than many other countries to withstand augmented competitive pressures. Italian or German firms operating in Romania are probably less inclined to choose the exit option in face of increasing pressures. Instead they may look for innovative ways to respond to new challenges.

Yet, the challenge to sustainability of export performance of clothing in EU markets looms large on the horizon. Considering the importance of this sector to national welfare, this calls for a major study of a TC sector in Romania and designing measures that would improve domestic business climate.[22]

6. CONCLUSION

What does it all say about sustainability of export performance? The evidence from developments in identified characteristics of Romanian exports suggests that while a 20-percent per year expansion in exports may not be easy to maintain, it appears to be based on healthy fundamentals. Consider first that the recent export expansion was not the result of a temporary explosion in import demand for a single, unique to Romania, commodity. Neither was it for that matter, solely, in its EU-dimension, restricted only to the most recent phase. To the contrary, it encompassed a larger basket of manufactures and included other markets than those of the EU.

Second, what makes the recent expansion more impressive is that it has occurred against the background of falling import demand in the EU. The implication is that Romanian exporters are not marginal suppliers, who are the first to be penalized by the contraction during the recession, but they have firmly established commercial links to EU markets.

Third, expansion and diversification in geographical patterns of trade has accompanied the growth in diversification of exports and some progress in integrating Romanian firms into EU-based networks of production and distribution. Clothing and footwear are no longer the sole levers of Romanian exports to the EU. Other products have been on the rise. The average rate of network export growth was higher in 2000-02 than the average rate of Romanian exports to the EU and exports of parts and components have driven network trade. This provides an indication that Romanian firms have begun participating in supply chains. These are usually lucrative activities providing stability to commercial relations and creating opportunities of supplying more than one single producer of a final product.

[22] The European Commission launched a major study to examine in detail the impact of quota elimination in the EU. The final report was published in January 2004.

Fourth, the developments in Romanian trade in clothing and footwear suggest that these two most important export-oriented sectors of the economy generating almost half of EU-oriented exports are not an enclave but have developed backward links into the domestic economy. These appear to be particularly strong in the case of footwear.

In sum, it appears that Romanian firms are well positioned to remain competitive in world markets. Conditions there, however, constantly evolve, forcing firms to update knowledge and technologies if they are to survive. Government policies may not only help—they are crucial to making them competitive. Sustainability, leaving aside keeping the relationship between wage increases and productivity growth, hinges critically on government policies shaping the business climate (second-generation reforms). Government policies are also critical to help the Romanian clothing sector deal with the 1995 change in EU trade regime for clothing. Their common denominator is an activist pursuit of reforms improving business climate and reducing the administrative hassle cost on the private sector.

Whether exports will be sustainable depends to a large extent on developments in relationship between labor costs and productivity, the emergence of production facilities using available skilled labor, the capacity of Romanian firms to withstand new competitive pressures caused by dismantling of MFA quotas, and restructuring of the agricultural sector. Sustainability critically depends on the developments in relation between labor productivity and wage growth in low-skilled labor intensive sectors of the economy.[23] Among factors responsible for the improved competitiveness in EU markets have been the progress in achieving macro stability and the stability of the real effective exchange rate. Although it has slightly appreciated in CPI terms, it has been stable in terms of ULC (unit labor cost) (IMF 2002a). Most importantly, productivity gains "… offset real wage increases."[24] Indeed developments in the factor intensity of Romania's trade suggest that the cost of labor relative to capital is not too high.

But this cannot be taken for granted. Increases in wage rates exceeding growth in labor productivity may erode competitive advantage of a very significant portion of exports. The opening up of EU markets to most efficient clothing producers in 2005 presents an extra challenge. Cheap labor combined with geographical proximity has been critical to Romania's success. The gap between endowment in high-skilled labor force and abundance of resources favoring agricultural production and the factor intensity of EU-oriented export basket still remains open.

Although the export expansion has been a constant feature of the Romanian transition from central planning despite often vacillating progress in the implementation of second-generation reforms, the divergence between its export basket and relative endowments may either choke or stimulate growth in the future. The outcome depends on government policies. The divergence over a relatively long time is an indication that government policies have prevented the emergence of competitive markets to allocate resources to industrial sectors with the potential comparative advantage. Neither has the agricultural sector succeeded in exploiting its favorable climate conditions, as government policies favoring large-scale farming appear to have prevented it from happening. In a similar vein, skilled labor has yet to become a factor in Romania's export performance, as FDI crucial to closing the gap has failed to take advantage of low cost skilled

[23] While the IMF (2002a) seems to be quite optimistic about sustainability of exports pointing not only to increases in labor productivity but also to strengthening of profitability of Romanian domestic producers, the OECD country report (OECD 2003) argues that the business environment discourages both domestic and foreign investment.

[24] Ibidem, p. 10.

labor available in Romania. Once the right policy environment is in place, it may contribute to another wave of export expansion in the near future.

Paradoxically, this combination of unfulfilled potential in agriculture and industrial restructuring may offer unique opportunities providing further impetus to the foreign trade expansion. This calls, however, for implementation of the measures fostering agricultural restructuring and removing policy and institutional barriers to the allocation of capital to most competitive activities. These measures would attract FDI inflows. As the experience of CEEC economies demonstrates, FDI in activities closing the gap between endowment in skilled labor and factor intensity of production have driven export expansion in CEEC countries that had undertaken earlier structural reforms.

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STATISTICAL ANNEX

Annex Tables

Annex Table 1: *Romania's Direction of Trade in Total Goods and Manufactures, 1993-2002*

Partner (no. of countries)	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
All Goods:										
World Exports ($ million)	4,892	6,151	7,910	8,084	8,431	8,301	8,503	10,367	11,385	13,876
World Imports ($ million)	6,522	7,109	10,278	11,435	11,280	11,835	10,395	13,054	15,552	17,862
Rates of growth of exports		25.7%	28.6%	***2.2%***	***4.3%***	***-1.5%***	***2.4%***	21.9%	9.8%	21.9%
Rates of growth of imports		9.0%	44.6%	***11.3%***	***-1.4%***	***4.9%***	***-12.2%***	25.6%	19.1%	14.9%
Export Shares (%)										
EU15	41.4	48.2	54.1	56.6	56.6	64.7	65.6	64.0	68.0	67.3
NAFTA3	2.0	3.9	3.0	2.7	4.4	5.1	4.2	4.2	3.7	4.9
East Asia15, including Japan	12.7	9.5	7.2	4.1	4.6	1.6	1.8	2.2	2.5	4.0
CEEC-9	5.5	6.2	4.4	4.5	4.8	5.4	7.0	8.2	7.1	6.4
CIS12	9.1	6.3	5.7	5.3	6.2	4.2	3.2	3.7	2.8	1.8
of which: Russian Federation	4.5	3.4	2.0	2.0	3.0	1.0	0.6	0.9	0.7	0.3
Import Shares (%)										
EU15	45.3	47.7	49.9	51.5	52.5	57.7	60.4	56.7	57.4	58.5
NAFTA3	6.7	7.2	4.4	4.1	4.9	4.8	3.9	3.4	3.6	3.4
East Asia15, including Japan	4.4	3.2	5.8	6.7	8.3	5.8	6.5	5.9	5.5	6.0
CEEC-9	5.3	5.0	5.7	5.4	6.2	9.2	9.0	8.9	9.7	9.7
CIS12	15.6	17.8	15.7	15.4	14.9	11.5	9.6	13.0	11.5	12.0
Of Which: Russian Federation	11.7	13.8	12.0	12.5	12.0	9.0	6.8	8.6	7.6	7.2
Manufactures:	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
World Exports ($ million)	3,703	4,603	6,128	6,205	6,600	6,689	6,659	7,953	9,187	11,241
World Imports ($ million)	3,435	4,278	6,489	7,378	7,664	8,623	8,009	9,825	11,676	13,977
Rates of growth of exports		24.3%	33.1%	1.3%	6.4%	1.3%	-0.4%	19.4%	15.5%	22.4%
Rates of growth of imports		24.5%	51.7%	13.7%	3.9%	12.5%	-7.1%	22.7%	18.8%	19.7%
Export Shares (%) (total)[1/]	76%	75%	77%	77%	78%	81%	78%	77%	81%	81%
EU15	43.9	54.7	61.5	64.9	64.1	71.0	73.2	73.3	75.2	72.9
NAFTA3	2.4	4.4	3.8	3.3	4.6	6.0	4.8	5.2	4.3	4.3
East Asia15, including Japan	16.2	11.1	7.4	5.2	4.7	1.6	1.6	1.6	2.2	4.3
CEEC-9	4.0	5.0	3.9	3.7	4.3	4.2	5.5	5.5	5.2	5.1
CIS12	8.4	5.2	3.6	3.6	4.3	2.8	1.4	1.5	1.8	1.5
of which: Russian Federation	4.3	3.0	1.7	1.6	2.3	1.0	0.4	0.4	0.4	0.3
Import Shares (%) (total)[2/]	53%	60%	63%	65%	68%	73%	77%	75%	75%	78%
EU15	67.1	69.7	69.2	69.9	67.5	69.7	71.3	68.7	69.7	69.0
NAFTA3	6.6	7.0	3.5	3.8	4.2	4.5	4.1	3.6	4.0	3.4
East Asia15, including Japan	4.8	4.6	8.2	9.1	11.3	7.0	7.6	7.2	6.7	7.0
CEEC9	6.8	5.5	6.1	6.2	6.7	8.9	8.4	8.6	9.3	9.9
CIS12	6.0	5.2	4.8	3.9	3.5	3.0	1.9	2.6	2.6	1.9
of which: Russian Federation	2.4	2.0	2.1	1.7	1.5	1.2	0.8	1.0	1.1	0.7

[1/ 2/] share of manufactures (SITC. 5 through 8 minus 68) in total exports
Source: UN COMTRADE Statistics.

Annex Table 2: *Average commodity composition and rates of growth of exports to EU and ROW, 1993-95, 1996-99, 2000-02 and 2002*

Product (SITC Rev. 1)	Average Exports to EU 1993-95	1996-99	2000-02	EU 2002	Average Exports to ROW 1993-95	1996-99	2000-02	ROW 2002	Average rate of growth to EU 1993-96	1996-99	2000-02	Average rate of growth to ROW 1993-96	1996-99	2000-02
All manufactures (5+6+7+8-68)	84.5	87.0	88.2	87.8	67.8	63.9	63.0	67.1	52%	7%	19%	7%	-6%	20%
Chemical elements (51)	2.3	2.3	2.0	0.7	6.9	8.0	8.1	3.5	79%	-12%	15%	51%	-11%	13%
Leather goods (61)	3.9	4.6	4.7	4.6	0.1	0.2	0.5	0.5	89%	9%	19%	34%	53%	47%
Wood products (63)	1.1	1.1	1.2	2.0	1.2	1.4	1.1	0.7	41%	25%	18%	-3%	-1%	18%
Textiles & fabrics (65)	2.2	2.1	2.0	2.4	3.7	3.4	2.7	1.8	44%	7%	26%	5%	-13%	18%
Iron and steel (67)	7.7	9.0	9.9	2.8	28.2	25.7	24.0	16.9	108%	-10%	-2%	-3%	-4%	20%
Metal products (69)	1.8	1.8	1.8	1.5	2.0	3.2	2.1	1.4	53%	3%	12%	-4%	13%	5%
Furniture (82)	11.4	9.6	8.5	5.3	4.2	4.3	3.8	2.7	24%	-4%	11%	-3%	-6%	22%
Clothing (84)	30.0	30.9	32.0	32.7	3.3	5.6	7.4	4.5	46%	11%	17%	43%	7%	18%
Footwear (85)	4.7	5.3	5.7	7.9	1.3	0.9	0.6	0.4	75%	17%	22%	2%	1%	3%
Non-electric machinery (71)	3.6	3.9	4.2	4.3	11.9	12.2	12.6	7.1	43%	18%	10%	-3%	2%	10%
Electrical machinery (72)	3.7	4.2	4.2	11.8	3.2	3.0	7.2	7.8	81%	21%	49%	25%	-9%	91%
Transport equipment (73)	2.6	2.9	2.9	4.9	12.9	11.0	10.6	6.8	58%	25%	23%	-14%	-3%	18%
Foodstuffs (0+1+22+4)	4.2	3.6	3.4	2.3	8.7	11.5	4.9	4.6	21%	9%	7%	31%	-3%	-5%
Agric raw matl (2-22-27-28)	1.4	1.4	1.3	1.5	5.4	7.7	8.1	7.0	46%	29%	-1%	24%	7%	7%
Petroleum (33)	5.8	3.8	2.5	4.4	12.6	10.7	13.9	12.1	-25%	-10%	142%	32%	-12%	37%
All goods (0 to 9) in million of US dollars	3,090	5,075	7,901	9,336	3,220	3,252	3,975	4,540	45%	7%	19%	13%	-5%	17%

Source: Derived from UN COMTRADE Statistics.

Annex Table 3: *Major four-digit SITC exports to the EU in 1995-2002 (in million of US$ and percent)*

SITC Rev2	Product	Major Exports (million of US$)								Export Share 2002 in %
		1995	1996	1997	1998	1999	2000	2001	2002	
8510	Footwear	223	253	309	362	411	494	629	736	7.89
7731	Insulated,elect.wire,cable,bars,str	70	70	71	129	143	164	268	472	5.05
8439	Other outer garments of textile fab	140	192	218	211	236	313	407	469	5.02
8219	Other furniture and parts	380	342	308	307	311	319	336	391	4.18
6123	Parts of footwear	170	214	213	229	242	273	325	385	4.13
8423	Trousers,breeches etc.of textile fa	148	179	194	236	270	290	341	374	4.01
8435	Blouses of textile fabrics	76	76	94	110	125	151	194	269	2.88
8431	Coats and jackets of textile fabric	199	208	239	248	211	197	239	266	2.85
8451	Jerseys,pull-overs,twinsets,cardiga	72	94	114	138	146	170	203	250	2.68
8441	Shirts,men's,of textile fabrics	81	91	106	128	132	163	186	232	2.48
8462	Under garments,knitted of cotton	46	58	71	104	129	152	192	220	2.35
7849	Other parts & accessories of motor	29	41	36	40	45	63	115	211	2.26
7641	Elect.line telephonic & telegraphic	0	1	0	4	20	102	182	155	1.66
8429	Other outer garments of textile fab	72	99	105	114	125	134	139	148	1.59
8459	Other outer garments & clothing,kni	35	44	50	58	58	82	120	144	1.55
7932	Ships,boats and other vessels	47	63	34	87	151	133	92	144	1.54
8434	Skirts,women's,of textile fabrics	46	51	49	63	63	87	100	120	1.29
6841	Aluminium and aluminium alloys,unwr	121	119	143	138	86	109	108	114	1.22
8422	Suits,men's,of textile fabrics	35	56	57	82	84	82	79	104	1.12
8211	Chairs and other seats and parts	38	39	36	40	39	42	77	97	1.04
8424	Jackets,blazers of textile fabrics	94	93	95	95	91	88	84	92	0.98
6842	Aluminium and aluminium alloys,work	33	19	50	66	106	147	89	87	0.93
7758	Electro-thermic appliances,n.e.s.	1	1	1	10	29	40	64	81	0.87
7439	Parts of the machines of 743.5-,743	4	5	5	4	5	2	36	76	0.81
6584	Bed linen,table linen,toilet & kitc	20	20	26	42	39	41	54	75	0.80
7611	Television receivers, colour	0	0	0	0	0	0	0	71	0.76
6353	Builders' carpentry and joinery	16	21	30	42	54	58	61	69	0.74
7162	Elect.motors & generators,generatin	47	54	48	54	55	59	64	67	0.72
2483	Wood of non-coniferous species,sawn	21	23	22	33	56	47	51	65	0.69
6251	Tyres,pneumatic,new,of a kind used	3	3	3	2	8	14	14	63	0.67
	All above 30 products	2,267	2,532	2,730	3,177	3,468	4,015	4,847	6,046	64.77
	Share in total exports to EU	52.9%	55.4%	57.2%	59.2%	62.1%	60.6%	62.7%	64.8%	
0 to 9	All goods	4,282	4,574	4,776	5,369	5,581	6,630	7,736	9,336	100.00

Source: Computations based on UN COMTRADE Statistics.

Annex Table 4: *The fastest growing exports to the world in 1995-2002 (in million of US dollars and percent)*

SITC Rev2	Product	1995	1996	1997	1998	1999	2000	2001	2002	Annual growth 1995-2002
2882	Other non-ferrous base metal waste	0	0	0	28	60	91	19	30	231
6341	Wood sawn length wise, sliced and peeled,	0	0	1	2	6	3	5	17	164
7641	Elect.line telephonic & telegraphic	0	2	0	4	21	104	187	164	158
2820	Waste and scrap metal of iron or st	1	3	25	74	101	207	133	190	117
3413	Petroleum gases and other gaseous h	0	0	0	1	9	30	29	33	109
7643	Radiotelegraphic & radiotelephonic	0	0	2	4	4	76	89	39	91
7853	Invalid cariages,motorized or not,p	0	0	0	0	0	2	8	12	79
5838	Ion exchangers of polymerization/co	0	2	5	11	15	20	22	20	77
7414	Refrigerators & refr.equipment,ex.h	0	2	10	13	3	6	10	17	77
7758	Electro-thermic appliances,n.e.s.	2	1	2	10	31	43	68	89	76
6725	Blooms,billets,slabs & sheet bars o	1	1	15	30	43	11	75	27	74
5542	Organic surface-active agents,n.e.s	1	2	11	9	14	22	16	34	73
7132	Int.combustion piston engines for p	0	0	17	13	54	40	22	18	70
7649	Parts of apparatus of division 76--	5	3	2	17	12	155	67	212	69
0430	Barley,unmilled	1	25	29	3	6	8	22	30	67
0484	Bakery products (e.g.,bread,biscuit	0	1	1	2	4	5	10	13	63
7764	Electronic microcircuits	1	1	1	2	2	39	33	23	62
6251	Tyres,pneumatic,new,of a kind used	4	3	4	2	8	14	15	79	53
7149	Parts of the engines & motors of 71	1	0	2	2	3	6	15	19	52
1222	Cigarettes	1	0	0	1	0	0	7	13	50
7439	Parts of the machines of 743.5-,743	5	7	8	7	8	4	38	79	47
6560	Tulle,lace,embroidery,ribbons,& oth	1	2	2	4	6	6	12	17	47
7732	Electric insulating equipment	2	1	2	1	1	1	2	24	44
8471	Clothing accessories of textile fab	1	2	3	5	3	5	10	11	44
3510	Electric current	8	0	13	11	73	47	62	100	44
7712	Other electric power machinery,part	4	5	10	20	28	36	44	45	40
2224	Sunflower seeds	3	4	6	21	74	19	25	30	38
5829	Other condensation,polycondensation	2	7	8	11	8	11	11	18	38
5530	Perfumery,cosmetics and toilet prep	1	3	4	6	7	7	9	13	37
7284	Mach.& appliances for spezialized p	2	5	5	11	14	23	24	22	37
		1%	1%	2%	4%	7%	10%	10%	10%	
	All above 30 products	49	84	187	324	616	1,044	1,089	1,437	62
0 to 9	All goods	7,910	8,084	8,431	8,301	8,503	10,367	11,385	13,876	8

Note: The fastest growth products are based on the export values at least $10 million in 2002 and the highest annual growth rate in 1995-2002.
Source: Computations based on UN COMTRADE Statistics.

Annex Table 5: *The fastest growing exports to the EU in 1995-2002 (in million of US dollars and percent)*

SITC Rev2	Product	1995	1996	1997	1998	1999	2000	2001	2002	Annual Growth 1995-2002
7641	Elect.line telephonic & telegraphic	0	1	0	4	20	102	182	155	182.57
6341	Wood sawn lengthwise,sliced/peeled,	0	0	0	1	5	2	4	16	167.78
7643	Radiotelegraphic & radiotelephonic	0	0	2	3	3	72	61	12	116.28
7764	Electronic microcircuits	0	0	0	1	1	39	22	14	92.26
5838	Ion exchangers of polymerization/co	0	1	2	3	7	12	13	10	88.95
7853	Invalid carriages, motorized or not,p	0	0	0	0	0	2	8	12	83.90
7758	Electro-thermic appliances,n.e.s.	1	1	1	10	29	40	64	81	83.09
2820	Waste and scrap metal of iron or st	1	1	10	37	40	61	29	37	71.79
7649	Parts of apparatus of division 76--	1	2	1	14	10	151	44	43	61.29
7439	Parts of the machines of 743.5-,743	4	5	5	4	5	2	36	76	54.44
7712	Other electric power machinery,part	2	4	9	19	26	35	40	41	51.72
6251	Tyres,pneumatic,new,of a kind used	3	3	3	2	8	14	14	63	51.44
7915	Rail&tramway freight and maintenanc	4	2	8	11	16	25	45	53	44.59
7284	Mach.& appliances for spezialized p	1	3	2	5	5	7	13	12	41.49
8939	Miscellaneous art.of materials of d	2	3	4	8	8	11	16	20	41.26
6560	Tulle,lace,embroidery,ribbons,& oth	1	1	2	2	3	4	8	11	40.36
8947	Other sporting goods and fairground	2	2	5	9	12	14	18	15	38.61
0012	Sheep and goats, live	4	5	8	10	12	16	31	34	33.76
5829	Other condensation,polycondensation	2	7	7	7	5	8	8	12	33.36
7849	Other parts & accessories of motor	29	41	36	40	45	63	115	211	32.81
2224	Sunflower seeds	3	4	5	13	58	18	20	22	32.41
7731	Insulated,elect.wire,cable,bars,str	70	70	71	129	143	164	268	472	31.32
6354	Manufactures of wood for domestic/d	2	2	2	3	3	6	10	11	30.04
6359	Manufactured articles of wood,n.e.s	8	10	14	21	24	31	41	51	29.93
6516	Yarn of discont.synth.fibres,contai	5	5	6	5	6	10	20	28	29.76
7281	Mach.tools for specialized particul	2	3	4	7	8	7	9	13	29.49
7362	Metal forming machine tools	2	5	4	4	5	9	10	10	28.14
6114	Leather of other bovine cattle and	5	7	7	3	3	6	12	30	27.70
7369	Parts of the machine-tools of 736--	6	12	14	15	21	21	30	31	27.11
7788	Other elect.machinery and equipment	8	9	16	16	18	22	28	39	26.52
	All above 30 products	168	211	248	404	549	975	1,219	1,635	38.42
	Share in total exports to EU	3.9%	4.6%	5.2%	7.5%	9.8%	14.7%	15.8%	17.5%	
0 to 9	All goods	4,282	4,574	4,776	5,369	5,581	6,630	7,736	9,336	11.78

Note: The fastest growth products are based on the export values at least $10 million in 2002 and the highest annual growth rate in 1995-2002.

Source: Computations based on UN COMTRADE Statistics as reported by Romania.

Annex Table 6: *Romania's Export Shares and Export Specialization Indices in EU Markets, 1993-2002*

SITC-2 Rev1	Product	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002 (prel.)
Share of Total EU-destined Exports (%):											
5+6+7+8-68	Manufactures	89	84	85	89	88	90	88	89	90	92
51	Chemical elements	1.81	3.09	2.48	1.65	1.92	1.63	0.84	1.11	0.73	0.52
61	Leather products	4.17	4.54	4.37	5.03	4.80	4.58	4.47	4.36	4.38	4.85
63	Wood products	1.17	1.02	1.19	1.21	1.37	1.64	1.97	1.94	1.86	1.92
65	Textile & fabrics	2.01	2.03	2.02	1.77	2.09	2.27	2.04	2.11	2.21	2.41
67	Iron and steel	4.41	8.34	10.55	9.60	9.29	8.63	4.69	4.41	3.76	2.40
69	Metal products	1.97	1.43	1.63	1.84	1.56	1.69	1.58	1.62	1.62	1.62
82	Furniture	14.35	10.60	8.77	8.37	7.26	6.55	6.29	5.55	5.01	5.38
84	Clothing	36.57	31.74	29.38	33.56	34.85	37.72	37.75	35.07	36.56	39.27
85	Footwear	4.15	4.67	5.08	5.70	6.82	6.55	7.14	7.20	8.43	9.69
86	Scientif & instruments	0.28	0.22	0.21	0.24	0.27	0.36	0.43	0.45	0.42	0.47
71	Non-electric machinery	3.15	2.99	3.66	4.86	4.56	4.97	5.73	4.92	4.66	4.22
72	Electrical machinery	3.18	3.78	4.00	3.95	3.95	4.90	5.98	10.74	10.71	9.61
73	Transport equipment	2.21	1.62	1.85	2.31	1.99	2.25	3.57	2.78	2.70	3.38
0+1+22+4	Food	4.87	4.30	3.44	3.46	3.28	2.57	3.72	2.51	2.69	1.73
2-22-27-28	Agricultural Raw Matl	1.63	1.67	1.44	1.20	1.31	1.42	2.48	2.36	1.69	1.25
33	Petroleum	2.17	2.67	1.22	0.90	1.34	0.60	0.45	0.40	1.19	2.28
0 to 9	All goods	100	100	100	100	100	100	100	100	100	100
Export Specialization Index:											
5+6+7+8-68	Manufactures	1.27	1.20	1.20	1.27	1.23	1.20	1.16	1.22	1.26	1.28
51	Chemical elements	0.75	**1.15**	0.88	0.62	0.69	0.58	0.32	0.45	0.29	0.21
61	Leather products	6.92	6.22	6.32	7.32	7.27	7.45	8.73	8.55	7.47	8.71
63	Wood products	1.82	1.51	1.76	1.92	2.14	2.61	3.13	3.41	3.32	***3.26***
65	Textile & fabrics	0.69	0.68	0.70	0.66	0.76	0.83	0.83	0.97	**1.03**	**1.24**
67	Iron and steel	3.25	4.97	4.85	5.45	5.49	4.29	2.96	2.62	2.31	1.70
69	Metal products	**1.07**	0.74	0.80	0.94	0.80	0.82	0.77	0.87	0.84	0.81
82	Furniture	12.69	9.08	7.28	6.65	5.89	4.90	4.44	4.26	3.62	***3.37***
84	Clothing	5.38	4.96	4.92	5.53	5.74	6.28	6.45	6.70	6.70	***6.59***
85	Footwear	3.12	3.63	4.38	4.72	5.60	5.79	6.31	7.08	7.68	***8.33***
86	Scientif & instrument	0.08	0.06	0.06	0.07	0.08	0.11	0.13	0.14	0.13	0.14
71	Non-electric machinery	0.23	0.21	0.25	0.33	0.30	0.30	0.35	0.32	0.31	0.28
72	Electrical machinery	0.32	0.36	0.36	0.36	0.35	0.42	0.48	0.78	0.87	0.81
73	Transport equipment	0.28	0.22	0.27	0.33	0.26	0.25	0.37	0.33	0.32	0.37
0+1+22+4	Food	0.54	0.45	0.38	0.39	0.39	0.32	0.49	0.40	0.41	0.27
2-22-27-28	Agricultural Raw Matl	0.58	0.54	0.43	0.44	0.49	0.57	1.12	1.07	0.83	0.64
33	Petroleum	0.22	0.30	0.16	0.10	0.16	0.10	0.07	0.04	0.13	0.27
0 to 9	All goods	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Note: Export specialization index is calculated as a ratio of Romania's export shares to EU to the EU's external import shares.
Source: Computations based on EU as reporter from UN COMTRADE Statistics

Annex Table 7: *Characteristics of trade with EU and Non-EU in terms of end-use product categories. Composition and export coverage of imports during the three phases (in percent and billion of US$)*

	Composition of Non-EU exports Average			Composition of EU-oriented exports Average			Share of EU in exports Average		
	1993-95	1996-99	2000-02	1993-95	1996-99	2000-02	1993-95	1996-99	2000-02
Food & Feed (0+1+2+4-27-28)	14.0	19.1	13.0	5.7	4.8	4.3	27	28	40
Industrial Raw Matl (27+28+68)	2.9	3.7	8.3	3.9	5.0	4.3	57	68	50
Machinery, excl auto (7-78)	14.2	14.2	16.7	8.8	12.0	18.5	38	57	69
Automobiles & Parts (78)	4.8	2.5	2.5	1.0	1.3	1.9	19	44	61
Consumer Goods (5+6+8+9-68)	64.1	60.5	59.5	80.6	76.8	71.0	55	66	70
Non-Oil Goods (0 to 9 less 9)	87.2	88.2	84.2	94.0	98.1	97.4	51	63	70
Fuels (3)	12.8	11.8	15.8	6.0	1.9	2.6	28	20	27
All Goods (in billion of US$ and percent)	*$3.1*	*$3.3*	*$4.0*	*$3.1*	*$5.1*	*$7.9*	*49*	*61*	*67*
	Composition of imports from non-EU			Composition of imports from EU			Share of EU in imports		
Food & Feed (0+1+2+4-27-28)	15.0	12.7	12.4	10.9	6.0	5.2	38.5	37.3	36.5
Industrial Raw Matl (27+28+68)	5.6	5.7	5.3	1.5	1.5	1.6	19.4	24.9	28.6
Machinery, excl auto (7-78)	12.7	18.1	21.7	31.7	28.1	25.8	69.4	66.1	61.7
Automobiles & Parts (78)	1.6	2.8	2.4	3.0	2.8	5.7	66.7	55.3	75.8
Consumer Goods (5+6+8+9-68)	65.0	60.7	58.3	52.9	61.6	61.7	42.5	55.9	58.9
Non-Oil Goods (0 to 9 less 9)	57.8	68.8	73.5	96.9	97.4	98.6	60.4	64.0	64.5
Fuels (3)	42.2	31.2	26.5	3.1	2.6	1.4	6.2	8.9	6.5
All Goods (in billion of US$ and percent)	*4.1*	*5.0*	*6.6*	*3.8*	*6.2*	*8.9*	*47.6*	*55.5*	*57.5*
Memorandum: Export as percent of imports	Trade with Non-EU			Trade with EU			Total trade		
Food & Feed (0+1+2+4-27-28)	74	99	63	43	66	72	62	87	67
Industrial Raw Matl (27+28+68)	40	42	95	**219**	**274**	**236**	75	99	**135**
Machinery, excl auto (7-78)	86	51	47	23	35	64	42	41	58
Automobiles & Parts (78)	197	60	62	31	38	30	99	48	37
Consumer Goods (5+6+8+9-68)	77	65	62	**121**	**101**	**102**	96	85	85
Non-Oil Goods (0 to 9 less 9)	117	84	69	79	82	87	94	83	81
Fuels (3)	24	24	36	**135**	59	**188**	31	27	46
All Goods (0 to 9)	*78*	*65*	*61*	*81*	*81*	*89*	*79*	*74*	*77*

Source: Computations based on UN COMTRADE Statistics.

Annex Table 8: *Romania's Export Specialization Index of Parts and Components in EU Markets, 1993, 1996-2002*

SITC	Parts & Component Product	1993	1996	1997	1998	1999	2000	2001	2002 e
71889	Regulators and parts for the engine	0.64	**1.45**	**10.15**	**16.98**	**8.25**	**5.40**	**2.84**	**10.24**
72119	Parts of the cultivating machinery	0.61	**1.84**	**1.64**	**1.85**	**1.51**	**1.87**	**3.23**	**3.42**
72129	Parts of harvesting machines	0.06	0.24	0.41	0.87	0.93	**1.42**	**1.13**	0.89
72198	Parts of the wine making machinery	0.27	0.70	0.56	0.00	1.30	0.92	**1.60**	**1.18**
7239	Parts of the construction machinery	0.09	0.71	1.62	0.28	**1.01**	0.68	0.44	0.54
72819	Parts of the machine tools	0.16	**2.05**	**2.17**	**2.35**	**3.35**	**2.89**	**2.58**	**2.42**
72839	Parts of the mineral working machinery	0.57	**5.50**	**1.21**	0.82	0.85	**1.30**	**1.00**	**2.78**
7369	Parts of the metal tools machinery	0.80	**1.97**	**2.03**	**1.54**	**2.34**	**1.95**	**1.94**	**1.92**
73719	Parts of the foundry equipment	0.15	0.88	**3.36**	0.59	**3.83**	**4.42**	**2.65**	**2.16**
73729	Parts of rolling mill	0.44	**5.46**	**5.46**	**1.52**	**3.31**	**4.25**	**2.89**	**2.77**
7439	Parts of the centrifuges & filters	0.32	**1.49**	**3.08**	**4.03**	**5.44**	**3.96**	**3.23**	**5.54**
74419	Parts of the fork lift trucks	**2.43**	**9.61**	**1.58**	**0.25**	**0.03**	**0.06**	**0.05**	**30.87**
7449	Parts of the lifting machinery	0.37	**1.64**	**1.43**	**1.61**	**1.30**	**1.26**	**1.29**	**1.26**
74999	Parts of the non electric machinery	0.12	**1.41**	**1.62**	0.93	**1.17**	0.67	0.40	0.33
764	Telecommunications equipment	0.03	0.03	0.04	0.16	0.21	**1.47**	**1.07**	0.60
77129	Parts of electric power machinery	0.02	0.15	0.32	0.71	0.98	0.83	0.70	**2.48**
77589	Parts of the electric appliances	0.17	0.00	0.00	0.10	0.58	**1.13**	**1.22**	**1.52**
78689	Parts of the trailers & non-motor vehicles	**4.07**	**3.13**	**2.91**	**2.41**	**2.14**	**1.83**	**1.38**	0.92
79199	Parts of the railroad equipment	**2.19**	**2.81**	**3.11**	**2.95**	**2.95**	**1.84**	**1.87**	**1.15**
82119	Parts of the chairs and seats	**1.99**	**1.34**	**1.22**	**0.93**	**0.96**	**1.19**	**1.14**	**1.07**
82199	Furniture, n.e.s. of other materials	0.99	**1.82**	**2.69**	**3.01**	**2.66**	**2.24**	**1.94**	**2.00**
88119	Parts of still cameras	0.02	0.00	0.01	**1.25**	**3.88**	**3.88**	**2.04**	**3.36**
89949	Parts of umbrellas & cans	**3.78**	**1.94**	**2.11**	**1.35**	**2.34**	**2.71**	**2.14**	0.98

Source: Computations based on EU data from UN COMTRADE Statistics.

Annex Table 9: *Romania's EU-oriented exports of parts 1998-2002 with the value exceeding US$ 10 million in 2002*

SITC	Product (Rev. 2)	1998	1999	2000	2001	2002e
764	Telecommunications equipment	21	34	334	268	152
784	Parts & the motor vehicles & accessories	48	57	38	87	109
7439	**Parts of the centrifuges & filters**	**36**	**50**	**42**	**46**	**86**
772	**Parts of the switchgear & relays**	**15**	**20**	**24**	**36**	**49**
82199	Furniture, n.e.s. of other materials	29	27	23	25	34
82119	Parts of the chairs and seats	10	13	17	23	31
7449	**Parts of the lifting machinery**	**23**	**19**	**21**	**26**	**30**
7369	**Parts of the metal tools machinery**	**11**	**18**	**15**	**18**	**20**
7149	Parts of the engines & motors	1	5	4	12	16
78539	**Parts of carriages & accessories**	**0**	**0**	**1**	**8**	**13**
77129	**Parts of electric power machinery**	**2**	**3**	**3**	**3**	**12**
7169	**Parts of rotating electric plant**	**3**	**4**	**6**	**8**	**11**
72849	**Parts of the special industrial machinery**	**7**	**4**	**4**	**7**	**11**

Source: Computations based on EU data from UN COMTRADE Statistics.